



Averill Park High School

Guide to Program Planning 2024-25





Guide to Program Planning at APHS

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Guide to Program Planning at APTS

The purpose of the Program Guide is to help you design a high school plan. Your plan should include steps that will lead to successful completion of diploma requirements, as well as preparation for your future, whether it be college, work, military service or other endeavor. As you will see, Averill Park High School offers many paths to success. Individuals are encouraged to choose the best path for them and to re-evaluate their plans each year. This program Planning Guide outlines several aspects of our high school program: An explanation of graduation requirements as specified by the New York State Board of Regents; Answers to commonly asked questions regarding various aspects of the high school program; A list and description of courses and programs offered by each subject area department. Involvement of your parents, teachers and your counselor is very important when selecting a program of study that will provide for your educational and future planning needs. The Averill Park High School staff will assist you in developing your program and in the decision-making and problem-solving processes. At the high school, individual student-counselor conferences will be scheduled for this purpose. If you have any questions, you or your parents are urged to call the Counseling Center.



Graduation Requirements

To graduate from the Averill Park High School, students in the Classes of 2023-2026 must fulfill course and examination requirements as explained below.

In keeping with state and district standards, the high school now offers two possible diplomas. All students are expected to challenge themselves and are required to work toward a Regents diploma as described below.


The eight-period alternate day block schedule requires ALL BLOCKS to be scheduled.

Unless otherwise noted in the departmental course listings that follow, a year-long course is equal to one credit toward graduation, and a semester course earns one-half credit.

COURSE REQUIREMENTS

Students must earn the following credits in order to graduate with one of three possible diplomas

CREDIT COURSE	REGENTS DIPLOMA	ADVANCED REGENTS DIPLOMA
English	4	4
Social Studies	4	4
Math	3	3
Science	3	3
Art / Music / Theatre	1	1
Health	.5	.5
Physical Education	2	2
World Language	1	3
Electives	3.5	1.5
Total Credits	22.0	22.0





Examination Requirements

Regents Diploma

Students must earn a passing grade on four Regents exams:

One in each content:

- Math
- Science
- Social Studies
- ELA

In addition, they must complete one more Regents exam in:

- Math
- Science
- or Social Studies
- OR approved CTE,
- or World Language
- Or Arts Pathway (not yet approved)

Advanced Regents Diploma

Please refer to notes below

Total of 7 or 8 Exams with a grade of 65% or higher:

- English
- Global Studies
- U.S. History
- Math
- Science Exams
 - (at least one in life science, one in physical science)
- World Language

Notes:

A local diploma is an option in accordance with NYS Department of Education guidelines for a student with disabilities only.

*A student who completes a five-unit sequence in Career & Technical Education, Art or Music may earn an Advanced Regents Diploma and be exempt from the World Language requirement. Career & Technical Education includes courses in technology education and vocational studies.

**To earn an Advanced Regents with Honors Diploma, a student must achieve an average of 90% on Regents examinations taken.

Planning for College

Many students plan to enter college upon graduation from high school. Depending on the type of college and academic program you aim for, there may be specific courses or experiences throughout high school that will prepare you and enhance your ability to accomplish your goals. Following are general guidelines on what colleges look for.

Four-year college:

- 3-4 years of academic math (4 years are generally expected)
- 4 years English
- 3-4 years of lab science (4 years are generally expected)
- 4 years Social Studies
- 2-4 years of World Language

In addition, if you are interested in particular fields or careers, there may be highly recommended high school course work. For instance, admittance to an architecture program usually requires a portfolio which should demonstrate some Art training. Nursing requires Chemistry. Prospective engineers should take 4 years of Math and Science as well as Project Lead the Way courses. Colleges look for students who have demonstrated success in the most challenging courses appropriate to each student. Each college admits students whose past records, including standardized test results, indicate success that will likely continue at a particular college or university. Colleges with specialized degree programs sometimes require performance reviews, such as an art or architectural portfolio or musical audition. Talk to your counselors about your aspirations and ask for their course recommendations.

Two-year college: If you plan to enter a two-year college with the goal of eventually transferring to a four-year college, then you should take the college preparatory courses mentioned above. Developing strong study skills, and learning to read, write and solve problems at a high level will ensure success in any two-year college program.

Guide to Program Planning FAQ

What is a Credit?

A credit is earned by taking a course for a full block for a full year, and passing it with an average of 65 or higher. A half credit is earned for a one semester course.

What is a “Sequence”?

Sequence refers to a 5-credit series of courses in one subject area such as art or technology. Sequences in Art, Music, Technology, and CTE may be used as part of the requirements for an Advanced Regents Diploma.

How is a student placed in a specific level of a course?

Judgments regarding the placement of a student in specific levels of a course are based on the student's past performance in the subject as well as the student's standardized testing record, where applicable. The subject teacher(s) make a recommendation for the level of instruction appropriate for the next school year. Course selection must be considered seriously, as changes during the school year could be very difficult. Decisions are subject to review each year.

How is a student promoted from one grade to the next?

In general, promotion from one grade to the next depends upon passing all required subjects and earning the number of credits shown in the chart that follows. Note: Certain privileges such as placement of pictures in the yearbook, parking on school property, etc. are granted based on a student's grade level assignment.

Grade Level	Number of Credits earned by student
Freshman	0-5.25
Sophomore	5.5-10.75
Junior	11.0-16.25
Senior	16.50 and above

How difficult is it to change my schedule of classes after the school year has started?

Course selection should be made carefully since opportunities to change courses are limited after the school year begins. Because the number of sections of each course is established by the number of students who sign up during the annual course selection time, it is difficult to accommodate much change in individual student schedules after that time. All student schedule requests are final as of April 8th. Many times course sections are full or conflicts cannot be resolved. Also, courses in any department will be offered only if there is sufficient registration. In these cases, schedule requests may need to be altered. **Only under the following circumstances may courses be dropped after the school year begins:**

- Student failed the prerequisite course.
- Student went to summer school and no longer needs the assigned course.
- Student is repeating a course with the same teacher.
- Clerical error or two courses assigned to one time slot.
- Medical considerations (requires medical verification).
- Student requests a drop after Week #2, unless the course is a requirement for graduation. The designated drop/add period is 2 weeks after the start of the first semester and full year courses, and concludes after 2 weeks. For second semester courses the drop/add period is 2 weeks after its start and will remain open for 2 weeks.
- Student must initiate the drop consideration with his/her counselor. Written input of his/her parent/guardian, input from the subject teacher, counselor and administrator will all be taken into consideration as well as documentation of one of the 6 reasons listed above. "Level" changes can be considered at any time before half of the course is completed.

Course adjustments will NOT be honored for:

- a) Teacher preference.
- b) Requests that drop a student's total number of courses below the required minimum.
- c) Choice of a particular time for a class or study period/lunch.
- d) A course required for graduation.

Note: For all dropped classes, a designation of "W" (Withdrawal) will appear on the transcript. This will not apply to level changes.

All students including seniors must carry 5.5 credits, including P.E. each semester. Students who wish to finish their graduation requirements by January of their senior year must apply to be a January Graduate by June of their junior year.

For what reasons may my course selections not be honored?

- If a student fails a prerequisite course and fails to take and pass it during summer school, he/she will not be scheduled for the requested course.
- Course conflicts: In some cases requested courses may only be offered once during the day at the same time period. If this is the case, a student will have to choose which course to take.
- If a course is oversubscribed and additional sections cannot be offered, seniors will be scheduled first, followed by juniors, sophomores and freshmen.
- If all prerequisites have not been met.

Can a student graduate in less than four years?

The High School Principal, in certain cases, shall grant students who wish to graduate from high school in less time than the usual four years permission to complete graduation requirements on an alternate schedule. All state and local graduation and diploma requirements must be completed for early graduation.

As early as possible, the student and his/her parents or guardian must consult with the high school counselor in order to develop an early graduation plan. Students need to be enrolled in Physical Education during each semester of school attendance. For those who graduate early, extra Physical Education is not required. In regard to individual student requests, the following factors must be considered: the student's grades; performance in school; the student's future plans; and benefits that would accrue to the student if the request for early graduation were to be approved.

The Principal shall make the decision on whether to grant permission after consultation with the individual student's counselor, the student, and the student's parent(s). A parent has the option to appeal the Principal's decision to the Superintendent of Schools.

What do employers look for in job applicants entering the workforce right after graduating from high school?

Employers look for job applicants who will be productive employees. This means individuals who have good communication skills and a willingness to learn new things. They want responsible people who get along with fellow workers and who take pride in their work. They expect that employees will come to work everyday and want to see a track record of good attendance in high school.

What person in the school can help me the most?

The person who will guide you through your high school program is your school counselor. This person monitors your records and will assist you with all your major decisions. He/she can help with subject information as well as job or college options. Further, individual teachers and other school staff can be of significant assistance as advisors or even mentors. The entire Averill Park staff is committed to helping you make the most of your high school experience.

STUDENT ASSISTANCE PROGRAM

This program is a joint venture between Rensselaer County Mental Health and Averill Park High School. The Student Assistance Program (SAP) works with students and their families to encourage healthy alternatives. The program provides confidential services for students whose personal concerns may be affecting their performance or behavior in school. Students are encouraged to use the program for assistance with a variety of issues including family problems, emotional concerns, alcohol and other drug abuse. The program offers comprehensive, evidence based, substance abuse prevention education in the classroom. The program also offers intervention and referral for all high school students at risk for substance abuse or other issues impeding their ability to reach educational goals.

You will find that the APCSD is committed to providing the most effective approaches to preventing the use of alcohol, tobacco, and other drugs in our schools and community. We know that prevention of drug

use and abuse is most effective when it is a partnership between the community, the home, and the school.

How is a student's progress reported?*

An evaluation of a student's progress in school is reported to students and parents eight times a year. Two different formats are used as follows:

Report cards and marking period procedures: The school year is divided into four marking periods approximately ten weeks in length. At the end of each marking period, a numeric grade is calculated. This grade is an average of the marks accumulated during the marking period based on class participation, assignment preparation and quiz/test grades. The student's final grade for full year courses will be an average of the four quarters. For semester courses, the final grade is an average of two quarters. A student must achieve a final average of 65 in order to pass a course and earn credit.

The district calendar indicates days when report cards are available to view in SchoolTool.

***NOTE:** Parents who do not have computer access may request that a copy of report cards be mailed to them. This request should be made in writing to the Counseling Center.

What are some other programs available to me as an Averill Park High School student?

ARTICULATION AGREEMENTS

What are they? Written agreements between a high school and college granting college credit for knowledge obtained in high school provided rigorous academic standards have been met. Why were they created? Educational institutions want to promote high academic standards and foster student learning. How do they work? Students enroll in a "college credit" course at Averill Park High School; at the start of the course teachers will explain the articulation agreement and ask interested students to complete college registration forms and pay a reduced rate tuition fee. Students are then enrolled in a college course at Averill Park High School. Once the course is completed, the student will receive a transcript from the college documenting completion of the college credit.

College Course Credits - College course credits (earned at colleges) can be used for Averill Park High School credits providing the following conditions are met: (1) Prior approval is received from the guidance counselor and an administrator. (2) The student pays all tuition costs and requests an official transcript from the college for high school permanent records. (3) Generally a college semester course of 3 or 4 semester hours will be given ½ credit at Averill Park High School. (4) Passing grades must be earned in the college course. College courses do not count in rank-in-class determination.

What advantage is there in earning college credit in high school?

Firstly, earning college credit while still in high school shows a prospective college or employer that you were successful in meeting the demands of a college level course. Secondly, the college credit may be applied to your college requirements. (There is no guarantee of this. It depends on where you go to college and what you study.) Thirdly, the tuition fee is at a much reduced rate than actually taking the course at a college.

What articulation agreements does Averill Park High School have?

Through Hudson Valley Community College students may earn college credits for:

Introduction to Engineering Design
Digital Electronics
Automotive Technology 2
Construction Practicum
Biology 105-The Gene
Advanced Painting & Drawing
AP Biology

College Readiness & Research Skills
Physics
American National Government
Statistics
Calculus I w/ Pre-Calc
History of Rock & Roll



Through The University at Albany students may earn college credit for:



French IV, French V

Through SUNY Oswego students may earn college credit for:

Spanish IV, Spanish V

Through The University Of Northwestern of Ohio students may earn credit for:

Automotive Technology 2

Through Columbia Greene Community College:

Photography

English 12 AP

Advanced Ceramics

English 11 AP



UNOH
UNIVERSITY OF NORTHWESTERN OHIO



Through Schenectady County Community College students may earn credit for:

Music Theory

Questions about articulation agreements may be directed to your counselor or the teachers of these courses.

CAREER TECHNICAL EDUCATION STUDIES (CTE)

The Averill Park School District provides education in the area of occupational studies to those students desiring these programs. Career Technical Education programs are one-year and two-year programs in which students earn four (4) credits each year by attending morning or afternoon classes at the Rensselaer Education Center in Troy. One credit is awarded for successful completion of each quarter's work in the CTE program. Students in the CTE occupational programs in general can take only their required courses or, at most, one elective at the high school. Transportation is provided to these classes and back to Averill Park High School. Afternoon CTE students return to the school at approximately 3:00 p.m., we offer late buses on Wednesday and Thursday afternoons only. Students will need to arrange pickup on the other days.

Due to the large financial responsibility assumed by the District for each student attending a CTE course, it is imperative that careful consideration be given to all facts relating to the program before a final decision is made. Once enrolled, students are committed for one full year and may not drop CTE. Students should plan to talk with their counselor, read the descriptive information about the program, discuss fully with parents, have them sign necessary forms, and visit the CTE course of their choice.

Questar III has the following course offerings:

- Gaming and Multimedia
- Cosmetology
- Culinary Arts
- Criminal Justice
- Heating & Cooling Ventilation
- Heavy Machinery and Equipment
- Certified Nursing Assistant (12th gr. only)
- Construction
- Pathways in Education

See your counselor for more details.



ENGLISH TO SPEAKERS OF OTHER LANGUAGES

This state mandated program is offered only to students for whom English is not a native language. The curriculum is devised around the students' individual needs, which are demonstrated in an assessment given prior to placement in the program. Intensive individualized and/or small group instruction is given in the skills of reading, writing, listening, and speaking in English. Also, some instructional time is dedicated to assisting students with coursework for other classes, as well as to improving study skills. Students who qualify may receive English credit through the English to speakers of other languages program.

Prerequisite: Language Assessment Battery Test or New York State English as a Second Language Achievement Test.

What do I do if I fail a course or required exam?

SUMMER SCHOOL/CREDIT RECOVERY

Students who fail required courses are strongly urged to participate in summer school or other credit recovery opportunities. AP currently uses Apex, an online learning program. Summer School is generally used for remedial purposes, though some credit accrual opportunities may be available, depending on the year. For more information, please speak to your School Counselor.

AUGUST REGENTS/EXAMS

Averill Park High School will administer August Regents examinations. Students who have failed a Regents examination or have passed a Regents examination but wish to improve their test grade by taking the August Regents, may do so by submitting a written request to their school counselor by June 28th. The written request must be countersigned by both the student and the parent or guardian.

It is recommended that any student who has previously failed a Regents examination attend summer school or receive tutoring before taking an August Regents examination in that area.

AUDITING COURSES

Any student who failed a Regents examination but passed a course is encouraged to attend summer school or receive tutoring before re-taking an examination. Auditing of a course the following year has, in general, proven to be a less successful option. A student is welcome on an audit basis only if he/she adheres to the behavioral and participation requirements of the teacher. Students who audit a class do not receive a grade. **Note:** Auditing a class will be permitted only upon the recommendation of the counselor and teacher. Approval of the principal is also required.

ADMISSION TO HONORS, AP AND ACCELERATED COURSES

At Averill Park High School, we are proud to offer many opportunities for our students to challenge themselves with rigorous coursework and intellectual experiences. These opportunities are available to students at all grade levels, in varying forms, including AP courses, College-in-the-High School (CIHS) courses, as well as Honors and accelerated programs.

In general, admission to any of these courses and/or programs is mitigated through meeting a series of recommended prerequisites and/or completing an entrance exam process. Over the years, each Academic Department has aligned these guiding admissions recommendations with levels of performance which have been established as correlating with a successful outcome for students in each of our Honors, AP, CIHS, and accelerated courses. In other words, by meeting these prerequisites, you are most likely to do well in these courses.

During the course selection process each year (January-March) we encourage all students with interest in our Honors, AP, CIHS, or accelerated courses to discuss these options with your teachers or school counselors, and to sign up if interested. In late spring, after verifying prerequisite outcomes, counselors and teachers will inform students of their admission status for any of these courses. By default, students who do not meet the recommended prerequisites will be placed in an alternate course.

If you are informed that you have not met the recommended prerequisite for an Honors, AP, CIHS or accelerated course, we encourage you to follow that recommendation. Our Academic Departments have well established levels of past performance which correlate with success in these courses. That said, as a public school it is our mission to open doors for our students; not to close them. If you still would like to

enter one of these courses, but did not meet the prerequisites, a student and parent/guardian may discuss this with the school counselor further.

ACADEMIC INTERVENTION SERVICES (AIS)

The New York State Education Department requires that schools provide additional support services to students who fail to meet NYS graduation requirements. Students who fail to pass required state exams or who fail to earn required credits may be scheduled for AIS. The goal of AIS is to help students meet requirements and achieve a diploma.

What are some Alternative Methods of Earning Credit?

Averill Park High School offers several alternative methods of earning credits in addition to taking regularly scheduled classes. Some of these options are described below.

Independent Study - Independent study projects may sometimes be used to achieve credits in all departments. Independent study projects must adhere to the following guidelines:

1. A teacher/advisor must oversee and evaluate the project work.
2. A written contract is required and it must specify: [a] academic objectives and activities, [b] approximate number of hours of student time commitment, [c] a timeline for project completion, [d] project evaluation criteria and [e] student, parent, teacher, counselor and principal signatures indicating prior approval.
3. A general guideline of 90 hours of project work equals 1/2 credit, 180 hours of project work equals 1 credit will be used.
4. The project work will be graded pass/fail and a passing grade must be earned to achieve credit.
5. A student must seek approval prior to September 30th for semester one classes and January 30th for Semester 2 classes.

Independent study grades may not count in rank in class determination. It will depend on the course. Principal approval is required, as well as teacher willingness to participate.

Course Credit by Examination and Project Work - Credits at Averill Park High School can be achieved by challenging the Regents examination. A grade of 85 or higher **plus** the completion of an appropriate project is required to earn credit. A student/parent must make a request to challenge a Regents in writing at least one semester prior to taking the exam. This process cannot be an 'ad hoc' decision. Prior meetings with the counselor should take place. Approval needs to be given by the principal to challenge a Regents exam as well as to approve the project. Grades achieved under the credit by examination and project procedures will not be used in rank-in-class determination.

What services are available for students by the Committee on Special Education?

Each school district in New York State is required to have a Committee on Special Education to review students who have educational related disabilities.

The continuum of special education services is used by the CSE to determine the type of support services that are needed. Special Education instruction is provided in a variety of settings, including general education classes, and small class environments with the goal of providing services in the least restrictive environment possible.

All services are determined by the CSE.

ART PROGRAM PLANNING

Requirements for a Sequence in Art:

(A sequence may be needed as part of the requirements for an Advanced Regents Diploma.)

Studio in Art plus 4 other Art courses are required for a 5-credit sequence in Art. For a 5-unit Advanced Regents sequence, students must submit a digital portfolio (a minimum of 12 works) from a four-year period. These images are taken during the second half of the senior year and are kept on file by the school. The student is responsible for working with an art teacher to create the digital portfolio file of their artwork.

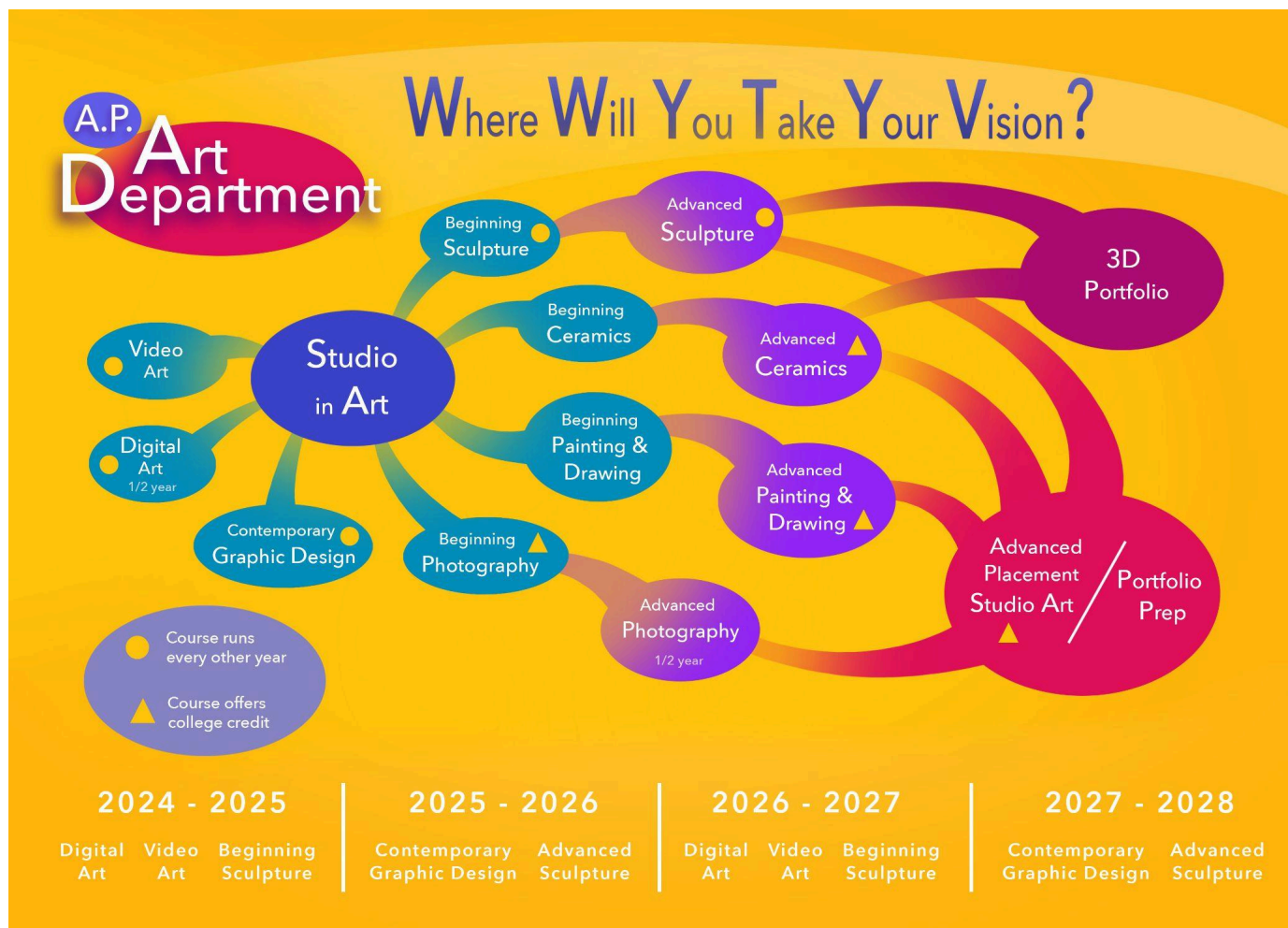
Advanced Regents Diploma/Art Major Requirements:

A five unit sequence in art will satisfy the requirements for an Advanced Regents diploma while also completing the necessary requirements to be considered an “Art Major.” Students will participate in the Senior Arts Gala and be recognized at Senior Awards Night for successfully completing a five unit sequence in art.

4+1 Pathway to Graduation:

Should one (or more) of these art courses consist of the successful completion of AP Studio in Art (see below for description) students will have met the requirements for New York State’s approved Visual Arts Pathway. They may also earn collegiate credit from the institution they plan to attend.

Below are the current offerings from the art department



Studio in Art

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Studio in Art is a comprehensive foundation course in compliance with the New York State Standards for the Visual Arts. This course is the prerequisite for all other art courses offered at Averill Park High School. Studio in Art is designed to provide experience with a variety of media and techniques through 2D and 3D projects that focus on the elements of art and the principles of design. Critical thinking and analysis are supported through art history, art criticism, and both verbal and written critiques. Rubrics and written assessments are used to evaluate projects and student performance. Student progress is based on projects, writing assignments, class participation, research, oral and written critiques, self-assessments, worksheets and a mid-term and final project/assessment.

Elective: No

Beginning Ceramics

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Studio in Art with an average of 80% or above

Description: An introduction to the techniques used in working with clay, the properties of clay and the history of ceramic art. Students will learn basic hand-building techniques and the use of the slab roller and the clay extruder. Students will also learn about the fundamentals of glazing and firing. A combination of rubrics and assessments are used to evaluate projects. Student progress is based on projects, notebook assignments, worksheets, and mid-term and final projects/assessments.

Notes: If students wish to continue in Advanced Ceramics, they need to earn an average of 80% or above or obtain the approval of the instructor.

Elective: Yes

Beginning Painting & Drawing

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Studio in Art with an average of 80% or above

Description: This course develops an understanding of various painting and drawing media and techniques. Students will focus on skill building, art history and art criticism. Evaluation in this course is based on quarterly homework assignments, in class projects, class participation, and a mid-term and final project/ exam. Students have one or two in-class projects each quarter with support exercises and at least one at-home project each quarter. Rubrics, written assessments, midterm and final portfolio reviews are used to evaluate projects and student performance.

Notes: If students wish to continue in Advanced Painting & Drawing, or College in the High School courses, they need to earn an average of 80% or above or obtain the approval of the instructor.

Elective: Yes

Beginning Sculpture

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Studio in Art with a final average of at least 80%.

Description: Studio in sculpture focuses on the materials and methods used in the creation of three-dimensional artwork. Beginning Sculpture will introduce the student to the work of contemporary and historic sculptors and the methods used in their work. Clay modeling, casting, carving, assemblage and construction are some of the methods students will explore. Students will focus on skill building, art history and art criticism. A combination of rubrics and assessments are used to evaluate projects. Student progress is based on projects, sketchbook assignments, class participation, research, oral and written critiques, self-assessments, worksheets, mid-term and final assessments.

Notes: If students wish to continue in Advanced 3-D, they need to earn an average of 80% or above or obtain the approval of the instructor.

Elective: Yes

How many art courses offer College Credit?



There are 5 Art Classes that offer college credit!

Photography - Adv. Ceramics

Adv. Painting & Drawing - A.P. Studio 1 - A.P. Studio2

Photography-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Studio in Art with an average of 80% or above.

College Credit: This course has the potential for students to receive college credit from Columbia-Greene Community College.

Description: This is a course designed for the student who is interested in creating powerful and dynamic photographs using digital photographic techniques. The first semester will focus on camera basics and composition. Students will learn about various types of cameras and the fundamentals of exposure. The second semester expands on the first to include alternative processes in digital photography and allow students to explore their individual interests while working more independently. Students taking this course should be prepared to work outside of class. A combination of assessments are used to evaluate projects such as rubrics, self-assessments and group critiques. Student progress in this course is based on projects, quizzes, class critiques and homework.

Notes: A digital camera with a manual setting is required for this course and a 35mm Digital SLR camera is recommended.

Elective: Yes

Can I use the College Credit for Columbia-Greene with other schools?



**Yes! Many schools take credit
from Columbia-Greene Community College!**

Advanced Ceramics-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Beginning Ceramics with an average of 80% or above

College Credit: This course has the potential for students to receive college credit from Columbia-Greene Community College.

Description: This course builds on knowledge and experience gained in Beginning Ceramics. Students deepen connections with ideas and materials that facilitate his or her response to three-dimensional clay forms. Students will learn techniques in throwing on the pottery wheel, advanced hand building, glazing and firing. Many projects will allow the self-motivated and independent art student to develop their own artistic voice through creative problem solving. A combination of rubrics and assessments are used to evaluate projects. Student progress is based on projects, sketchbook assignments, class participation, research, oral and written critiques, self-assessments, worksheets, and mid-term and final projects/assessments.

Elective: Yes

Advanced Photography

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Photography

Description: Advanced Photography is designed for photo students who wish to further explore the realm of photography with greater creativity and independence. Advanced photography utilizes the traditional skills developed in photography to springboard into an arena of greater self-expression. Mixed media, collage, projection, photo illustration and a variety of advanced digital techniques will all be incorporated into this curriculum. From content to subject matter Students will be asked to create projects based upon their own individual style and interest. We will also focus on building competitive photography portfolios that can be used to submit to colleges for grants and scholarships. Students will be expected to work independently to plan, organize, implement, and explain their projects. Student success is based on projects, class participation, research, oral and written critiques, and self-assessments.

Elective: Yes

AP Studio/Portfolio Prep Suite:

General Information:

Length: 1.00 yr.

Credits: 1.00 cr.

- **AP Studio 1, AP Studio 2, and Portfolio Prep** are all offered at the same time/block and in the same room.
- AP Studio Courses require students to select a “portfolio type” (Drawing and Painting, 2-Dimensional Design, or 3-Dimensional Design) after the course begins in the fall.
- Art- AP Studio Courses (**A New York State approved 4 + 1 pathway to graduation**)
- There is **no scheduled written exam** for AP Studio Courses, the development of the portfolio with writing to support the student’s understanding of the College Board’s rubric is **digitally** submitted in late April.
- Students who do NOT plan to major in art in college may still earn elective credit.

Elective: Yes

Advanced Placement Studio Art I :

AP Studio I Description: This course is designed for motivated junior and senior art students who wish to develop mastery in concept, composition, and execution of their ideas in one of the following portfolio areas:

- **2-Dimensional Design** (artwork can consist of graphic design, photography, printmaking, textile design, illustration or anything that is typically used for commercial production)
- **3-Dimensional Design** (Clay, Mixed Media, or any 3-D materials)
- **Drawing** (Painting, Collage, Printmaking, or any wet/dry media.
- May be taken as a Junior as long as the student has earned an 85 or higher in at least two beginning level art classes and/or at least one advanced level art class.
- If the student plans to select the Drawing and Painting track it is preferred they first complete Advanced Drawing and Painting prior to entering AP Studio Art.

Elective: Yes

Summer Assignment (for Both AP Studio I and AP Studio II): Please email gregorym@apcsd.org before the close of the school year with “AP Summer Assignment” in the memo to receive information about the summer assignment.

Fees (for Both AP Studio I and AP Studio II): The exam fee is approximately \$100.00 due in **September**. This course will prepare students to take the AP exam in May

In AP Studio Art the “exam” is the portfolio (there is no scheduled written exam.) Instead, students will submit a digital portfolio with supporting text to the college board for evaluation in late April.

Advanced Placement Studio Art II:

AP Studio II Description:

*Students can earn a **second** college course elective from the College Board by taking AP Studio I, then AP Studio II.*

AP Studio II has the same course description as AP Studio 1 (see above) with one exception. Students taking AP Studio II must submit an entirely new body of work and select a different portfolio type when registering with the College Board in the fall. For example, if a student successfully completed AP Studio

I as a Junior under the “2-D” portfolio type, they would have to select either Drawing or 3-Dimensional Design as a Senior and make **all new** artwork.

Prerequisites:

- May be taken under a different portfolio category as a Senior after successfully completing AP Studio 1 having earned an 85 or higher and/ or a score of 4 or higher from the College Board.

Summer Assignment for Both AP Studio I and AP Studio II: Please email gregorym@apcsd.org before the close of the school year with “AP Summer Assignment” in the memo to receive information about the summer assignment.

Fees: Fees for Both AP Studio I and AP Studio II: The exam fee is approximately \$100.00 due in September.

*In AP Studio Art the “exam” is the portfolio (there is no scheduled written exam.) Instead, students will submit a **digital** portfolio with supporting text to the college board for evaluation in late April.*

Portfolio Prep:

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites:

- Open to **Juniors** who plan to take AP Studio during the Senior year in order to extend their studio time and insure individual success
- Open to **Seniors** who need to develop an art portfolio for their College Application or for those who plan to submit a supplement to their application package should they not plan to major in art.
- Studio in Art in conjunction with any two beginning art classes and/or any one advanced art class. Students must have an 80% or above in previous art classes or obtain the approval of the instructor.

Description: Portfolio Prep is a course that emulates some of the rigor and coursework of AP Studio by removing the demands of the College Board submission process in May. ***It is expected that juniors who complete Portfolio Prep continue into AP Studio as seniors.***

Elective: Yes

Advanced Painting & Drawing -College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Studio in Art and Beginning Painting & Drawing.

College Credit: This course has the potential for students to receive college credit from Hudson Valley Community College.

Description: Advanced Drawing and Painting builds Painting and Drawing skills to develop the art portfolio. Students will create long term, ambitious projects that encourage independent and conceptual thinking. Projects will help the self-motivated and independent art student develop their own artistic voice. Projects will embed design content according to HVCC’ 2-Dimensional design course curriculum.

Evaluation in this course is based on quarterly homework drawings, in-class projects, oral and written critiques, writing assignments, class participation and a mid-term and final project/exam/portfolio review. Rubrics and written assessments are used to evaluate student performance and projects.

Notes: If students wish to continue into upper level art classes, they must earn an average of 80% or above or obtain the approval of the instructor.

Elective: Yes

Can I use the College Credit for Hudson Valley with other schools?



Advanced Sculpture (WILL NOT BE OFFERED IN 2024-2025)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Beginning Sculpture with a final average of at least 80%.

Description: Advanced Sculpture expands on the knowledge gained in Beginning Sculpture in the development of a three-dimensional portfolio. Students will learn about more advanced techniques used in the creation of sculpture. Students will focus on skill building, art history and art criticism. Many projects will allow the self-motivated and independent art student to develop their own artistic voice when creating solutions to problem solving assignments. Sketchbooks are encouraged for students planning to major in art. A combination of rubrics and assessments are used to evaluate projects. Student progress is based on projects, sketchbook assignments, class participation, research, oral and written critiques, self-assessments, worksheets.

Notes: This course is offered the 2025-2026 and 2027-2028 school years

Elective: Yes

3-D Portfolio

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Advanced Sculpture or Advanced Ceramics with a final average of at least 80%.

Description: This course is designed for students that have successfully completed Advanced Sculpture or Advanced Ceramics. This course allows for more time to develop a three-dimensional portfolio by working independently and conceptually. In this course, students will learn about more advanced techniques and concepts used by contemporary sculptors and ceramic artists. Students focus on skill building, art history, art criticism, and documenting and exhibiting work. Sketchbooks are recommended for students planning to major in art. A combination of rubrics and assessments are used to evaluate projects. Student progress is based on projects, critiques, sketchbooks assignments, worksheets, mid-term and final assessments.

Elective: Yes

Contemporary Graphic Design (WILL NOT BE OFFERED IN 2024-2025)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Studio in Art.

Description: In this class students will learn how to create effective computer based graphic design while studying the scope and impact of contemporary visual culture with an emphasis on visual communication. Students will be further exposed to typography, color theory and illustration/photographic styles used in graphic design. Moving beyond Two-Dimensional Design, students will study contemporary design issues including the application of digital workflow techniques using the Adobe Photoshop and Adobe Illustrator and current trends in design theory. All creative work will be done within the context of the cultural and psychological dynamics found in contemporary information exchange. A combination of rubrics and assessments are used to evaluate projects. Student progress is based on projects, sketchbook assignments, class participation, research, oral and written critiques, and self-assessments.

Notes: This course is offered for the 2025-2026 and 2027-2028 school years.

Elective: Yes

Digital Art

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Studio in Art.

Description: This course is designed to develop an understanding and appreciation of digital art along with the various methods, applications and techniques that are involved in its creation. Students will be given direct experience in the use and creation of bitmap and vector based images as well as digital sculpture. Students will focus on skill building as it relates to the fusion of traditional and digital techniques. In addition, students will be provided with an opportunity to develop a working knowledge of industry standard digital art applications. Evaluation in this course is based on projects, sketchbook assignments, written and oral critiques and self-assessments.

Notes: This course is offered for the 2024-2025 and 2026-2027 school years.

Elective: Yes

Video Art

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Grades 9-10 Studio Art Required. Grades 11-12 Studio Art Recommended

Description: The Video Art course is designed to introduce the student to the basic techniques of using video as a medium for creative expression. It includes writing, planning and producing. Digital editing techniques will be explored as well as learning how sound can be used to enhance the visual image. Students will engage with a variety of genres with special emphasis on contemporary artists. Although it is helpful if students have access to a camcorder or recording device, video equipment can be signed out for assignments through the school.

Notes: This course will be offered in the 2024-2025 and 2026-2027 school years.

Elective: Yes

Art and Community

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Art and Community is designed to provide a collaborative artistic experience for students with disabilities partnered with mainstream students. Using both a media-based approach in conjunction with hands-on approaches, students will share the creative process. A culminating exhibition will celebrate and showcase the students' teamwork and artistic accomplishments. This is an excellent opportunity for general education students considering human services fields to develop skills for working with people who have a diverse range of abilities.

Elective: Yes

Can Art Students earn an Advanced Regents Diploma?



Ask An Art Teacher? **Yes! Taking 5 art classes before graduation counts as your sequence for the Advanced Regents Diploma!**
(See your guidance counselor for additional exam and subject requirements.)

ENGLISH PROGRAM PLANNING

Requirements: English 9, English 10, English 11, English 12

Below are the current offerings from the English department:

English 9

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course develops reading, writing, speaking, and thinking skills. Emphasis is on expanding student awareness of the writing process through portfolio assessment, essay revision, and journaling. Library research skills and note taking will be reviewed. The literature will include a variety of non-fiction, poetry, short story, novel, and drama. This is the first course to prepare students for college and vocational writing and reading. The New York State Learning Standards for English Language Arts will guide instruction.

Elective: No

English 9 Honors

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: 90% average in grade 8 ELA, and successful completion of entrance exam, as conducted by the ELA Department

Description:The honors curriculum is designed for students who demonstrate excellence in the language arts. This is an upper level college preparatory course and is the first in a sequence to prepare students for the Advanced Placement Exam to be given in grade 12. Emphasis is placed on critical reading and writing skills through the evaluation of different literary works and the further development of the students' own varied interests in writing.

Notes: Required: Summer reading and writing assignments.

Elective: No

English 10

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of English 9.

Description: This course refines reading, writing, speaking, and thinking skills. Emphasis is on continued portfolio assessment and composition at a more advanced level. The literature accent is on themes, characterization, and deeper analysis. Research skills will expand student interests and link analysis to non-fiction. Students will study the art of persuasive speech and text, and learn techniques for reading, listening, speaking, and writing. The New York State Learning Standards for English Language Arts will guide instruction.

Elective: No

English 10 Honors

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of English 9 or English 9 Honors, and successful completion of entrance examination, as conducted by the ELA Department.

Description: This course will stress an in-depth study of various literary genres. Writing, speaking, and language usage will be studied as they apply to diverse literature and the demands of critical analysis.

Notes: Required: Summer reading and writing assignments. Students who are accepted and enrolled in English 10 H will take the NYS Regents ELA Comprehensive Exam in June. This allows them to focus on the AP exam in 11th grade.

Elective: No

English 11

Length: 1.00 yr.

Credits: 1.00 cr.

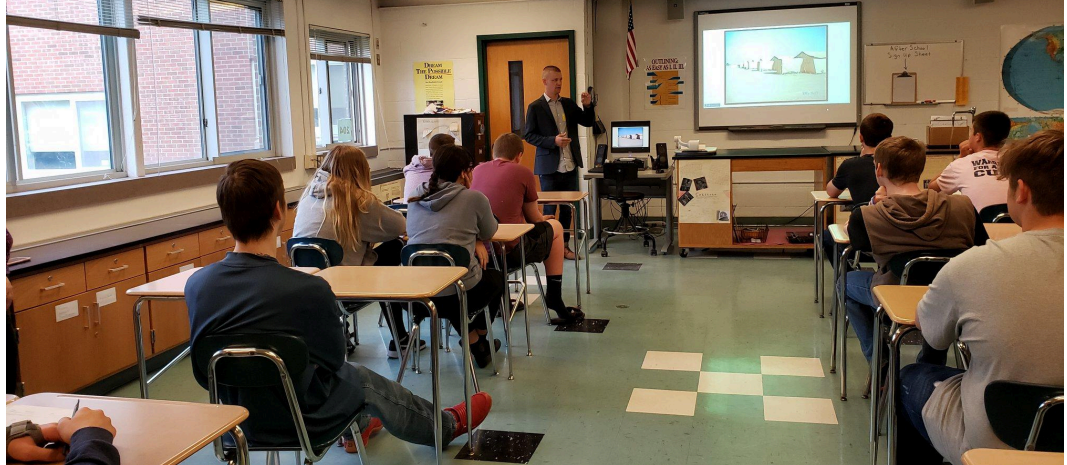
Prerequisites: Successful completion of English 9 and 10.

Description: Emphasis in English 11 is on improved analytical and writing skills. Students' consistent study of an assortment of fiction, non-fiction and poetry leads to improvement of their ability to ask questions and a broadening of their vocabulary. This will improve their overall reading and writing skills through this daily practice. The New York State Next Generation Standards guide our course

development and students will become familiar with the design of the current State English Language Arts Assessment.

Notes: Students in English 11R will take the NYS Regents ELA Comprehensive Exam in January. Those students who need or want to take the exam again in June will be scheduled to take that exam again

Elective: No



English 11 AP-College (Literature and Composition)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of English 10 Honors or Regents level.

College Credit: Students may receive college credit based on their AP exam score. A 3 out of 5 is considered passing, but each school sets its own policy. Students will also have the opportunity to receive college credit through Columbia Greene Community College.

Fees: The student is responsible for an exam fee (approximately \$100), but adjustments can be made in cases of hardship. Payment is due in November..

Description: This course involves the analysis of classic works of literature and poetry, honing critical thinking skills, which are necessary skills for any future field of study. Reading, discussing, and writing about diverse themes; learning sophisticated terminology to deepen our analytical skills; and increasing vocabulary are central components of this course. We also learn to ask questions about the writer's craft as we work to understand how a writer creates meaning. Often, we raise many more questions than we answer, which leads to both vibrant discussion and reflective thinking. There is a summer assignment that is due the first day of classes, and it is mandatory for all students to complete it. English 11AP is excellent preparation for any college course of study, as the skills acquired in this course are essential for all academic paths. While it is a challenging course, students with other AP courses should not shy away based on a fear of having too much work. The reading and writing are extensive, but we do the bulk of the work during class, making it easier for students to handle on top of other challenging courses.

Requirements: Summer assignment

Elective: No

English 12 - A list of half credit courses offered

Length: 0.00 yr.

Credits: 0.00 cr.

Prerequisites: Completion of English 11.

Description: In order to receive a full credit of English in 12th grade, students must complete 2-half credit courses from the following list:

- Detective Fiction
- Death as a Force in Literature
- Philosophical Literature
- Women's Literature
- Men's Literature
- Modes Of Analysis: Literature and Cinema
- Literature of the Imagination: Science Fiction and Fantasy
- Horror History
- Writer's Workshop

Priority for entrance into these courses is given to seniors. Seniors may not get their first or second choices, and may take two electives in one semester if they wish. Students opting for early graduation will take two electives in the first semester.

Elective: No

English 12 - Detective Fiction

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11.

Description: From Oedipus Rex to TVs CSI and Jessica Jones, we have been captivated and drawn to detectives seeking out killers and thieves. How did the detective fiction genre get from ancient Greece to Miami, Florida? The story of Detective Fiction goes through Edgar Allan Poe to Arthur Conan Doyle and Agatha Christie to the Hard Boiled detective fiction of the 1930s and 40s. Authors such as Raymond Chandler, Dashiell Hammett and James M. Cain wrote detective stories that changed the face of American film and gave rise to the iconographic hard-boiled detective. The influence of both the cozy and the hard boiled fiction of the past, are still felt in the modern detective stories we love so much today. Students will try their hand at writing various types and will research a modern detective fiction author. They will do presentations on modern examples, both filmic and written. Students will also consider how various permutations of the detective story relate to the culture they are/were created in.

Elective: Yes

English 12 - Women's Literature

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11.

Description: Ever since the arrival of Bridget Jones, young women have been identifying with the new breed of heroines. The books in this genre are written by women for women, written in the first person narrative with a light and humorous tone which is not something we can say about most of women's literature. Although most Women's Literature is comical, serious issues, such as relationships, workplace politics, and family dynamics are explored.

We'll begin by studying the character of Elizabeth Bennett as she breaks away from the stereotypical 19th century female role, and continue to trace the path of powerful young women in literature onward to the current trend of Women's Literature. We will break the gender molds, discuss current issues, empower and enlighten all while using works of the Women's Literature genre as a platform for that discussion.

Elective: No

English 12 - Death as a Force in Life and Literature

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11.

Description: This senior English elective course will explore multi-genre literature that deals with the themes of death, dying and the grieving process. Through literature, students will explore the toughest topic every human being must eventually face, mortality. Students will gather information and respond to it using a variety of written and oral formats. They will learn how to connect these themes to their own lives and learn how to deal with them in a healthy manner.

Elective: No

English 12 - Literature of the Imagination: Science Fiction and Fantasy

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11

Description: Imaginary worlds are central to our literary tradition. From children's fantasy such as Alice in Wonderland to sweeping sagas such as Frank Herbert's Dune or Tolkein's Lord of the Rings authors have transported readers to other realities; worlds with beings, locales, and even scientific laws different from our own. Literature of the Imagination explores the Science Fiction and Fantasy genres, investigating what they have to say about our society and humanity's role on (and off) our planet. The course traces the history and significant themes of the genres tracing back to the earliest days of written literature. Relationships between literature and science will also be examined. Students will write their own story and complete a research project on an author over the semester.

Elective: No

English 12 - Men's Literature

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11

Description: It would be a fallacy to presume that finding gender roles confining is an experience unique to women. This course looks at stories and characters which model stereotypical male behavior and have shaped society's idea of what it is to be masculine, and counters those images with stories of men who broaden what is acceptable for men as gender roles undergo inevitable change. These ideas will be explored, but we will also just enjoy reading good stories and some classic literature by and about men and their experiences.

Elective: No

English 12 - Cinema as Literature

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11.

Description: Cinema as Literature is a study of film as text. The course is designed to create active viewers and thinkers, as well as provide an overview of cinema as an art and a craft. Students will develop an overview of film history and criticism, as well as a better understanding of the contributions of the art to American culture. Focus units will look at the contribution of women and black directors, as well as the development of film technology and various genres. Each student will complete a major project that can be in the form of traditional research or criticism, or an original work in the form of a script or short film.

Elective: No

English 12 - Philosophical Literature

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Completion of English 11.

Description: This course satisfies the requirements as one of two senior electives for senior English credit. This course is excellent preparation for students who are interested in pre-law, history, pre-med., and other fields of study which deal with ethical issues. This course is essentially a crossover course between philosophy, literature, art, history, and science. Students will be exposed to literature that has contributed to the development of Western philosophical thought. A sampling of these texts is the impetus for a class based on reading, discussion, and writing about the "big" questions that philosophers have asked. Students will be expected to read and appreciate various texts, and discuss them.

Elective: No

English 12 -Horror History

Length: 0.50 yr.

Credits: 0.50 cr.

Description: Tales of horror have been part of our cultural experience from the dawn of written language, and the ongoing success of series like The Walking Dead and films like Get Out and A Quiet Place show the genre is just as central today. Horror History will trace the roots of the genre from earliest literature to the present, and focus on the interplay between fear and culture, considering how various themes and sub-genres may be manifestations of both our deepest fears and darkest urges. The course is strongly recommended for mature students, as emotionally challenging concepts will be discussed. Students will need parental permission to watch R-rated films during the last units of the course.

Elective: Yes

English 12 AP-College (Language and Composition)

Length: 1.00 yr.

Credits: 1.00 cr.

ELA 12 AP:

Prerequisites: Successful completion of English 11 Honors or Regents level, and successful completion of application, as conducted by the ELA Department.

College Credit: Students may receive college credit based on their AP exam score. A 3 out of 5 is considered passing, but each school sets its own policy. Students will also have the opportunity to receive college credit through Columbia Greene Community College.

Fees: The student is responsible for an exam fee (approximately \$100), but adjustments can be made in cases of hardship. Payment is due in November. Students will also have the opportunity to receive college credit through Columbia Greene Community college.

Description: This course is partly designed as preparation for taking the AP Language and Composition exam in May. This involves the study of rhetoric (art of argumentation and composition). We read primarily non-fiction texts and engage in various forms of analysis. The primary questions we learn to ask are: who wrote the text, with what purpose, in whose interests, and to what effect? There are two significant non-fiction books and two collections of essays, as well as a great deal of supplementary material including various media from YouTube videos to recorded lectures. Discussion and oral argument are also a key component in this class. This course will prepare students to take the Regents exam in May.

Notes: There is a summer assignment that is due the first week of class. That assignment is key for all students to complete, and the course is excellent preparation for college courses in the humanities or any career that involves argumentation and critical thinking, such as law or teaching. Our primary mode of instruction for writing is done through a workshop process that involves students in reading and listening to their fellow students' essays. A focus is placed on creation and discovery of three things: voice, story, and truth. While it is a challenging course, students with other AP courses should not shy away based on a fear of having too much work. The reading and writing are extensive, but flexible enough for students to handle on top of other challenging courses.

Elective: No

Public Speaking

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Open to Grades 9-12

Description: Public Speaking is a study of the various forms of communication involved in public speaking in a fun environment. The goals of the course would be to improve the student's ability to speak and listen, and to increase their awareness of the importance of effective communication. Students would participate in a variety of verbal activities in the classroom (from formal speeches and debate to impromptu and interviewing). It would benefit both students who possess strong speaking skills as well as weak speakers who realize their need for improvement.

Elective: Yes

Rock and Roll-College

Length: 1.00 yr.

Credits: 1.00 cr.

Fees: Tuition for College in the High School program thru Hudson Valley Community College (optional).

Description: Rock and Roll is a course designed for students that love Rock and Roll and for those who want to learn more about the origins and history of this genre of music. This class will integrate historic events with the history and progression of Rock and Roll. The class will cover issues of race, gender, and age and how Rock and Roll helped to spur rebellion in those areas in an attempt to create equality. Students will engage in discussions, work on reflective writing pieces and critiques, delve into and write their own song lyrics, watch related videos and listen to the music that changed the world both digitally

and on vinyl. This course is open to students of all grades and ability levels and the experiences provided will develop their skills in writing, music appreciation, discussion and presentation.

Elective: Yes

Journalism and Video Production

Length: 0.50 yr.

Credits: 0.50 cr.

Description: This English elective provides an introduction to two facets of the media-Journalism and Video Production. For the Journalism component, students will receive instruction in journalistic styles and responsibilities, learn journalistic editing and writing skills, and explore the role of journalism today. For the Video Production component, students will practice both on-camera skills and techniques, as well as off-camera (behind the scenes) skills in audio/video mixing, camera work, editing and directing for production. The project-based course will try to achieve a balance between the two components to help students gain a better understanding and command of journalistic and video production skills.

Elective: Yes

Writer's Workshop

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of English 10

Description: Writer's workshop focuses on writing skills for students of all ability levels, with special emphasis on college level work for those bound for two- and four-year programs. The course develops the student's understanding of the writing process and builds abilities essential to the creation of vivid prose and poetry. Emphasis is given to developing written expression of ideas through the revision process. Students will create a portfolio of traditional academic and artistic writing and submit selected pieces to be published in a class magazine.

Elective: Yes.



HEALTH PROGRAM PLANNING

Below are the current offerings from the Health department:

Health

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Grades 9-10

Description: This course is based on health education principles designed to emphasize and expand on an individual's knowledge, attitudes and values while respecting the opinions of others. It is designed to cover the physical, social and emotional aspects of health as they relate to maturing teens and their decision making skills. Students learn that there are many choices in life that can affect all areas of health and that they are in control of making decisions that can promote wellness and enjoyment for life. The units focus on mental awareness, nutrition, fitness, drugs, sexuality, and relationship areas of a healthy lifestyle. This course allows the opportunity to discuss sensitive topics and offers proactive options to prepare for the future. Health is designed to be project-oriented in an effort to promote cooperation among diverse students, recognition of individual responsibility and the understanding of holistic wellness concepts. The curriculum is designed for the Sophomore level student, but may be taken by students in the 9th and 10th grade years. Successful completion of this course is required for graduation, and students will complete this course prior to the end of 10th grade.

Elective: No.



MATHEMATICS PROGRAM PLANNING

A note about graphing calculators for 9th grade parents or anyone considering purchasing: Graphing calculator technology is integrated into the math curriculum starting in Algebra and is used across our high school math curriculum. New York State requires the use of graphing calculators in Algebra I NGLS, Geometry NGLS, and Algebra II, and graphing calculators are used in most other courses in our math program as well.

All of the teachers in the math department primarily teach using the Texas Instruments TI Nspire CX/CX2 calculator. Here are some things to consider as you help your child to be prepared for math classes:

- If the TI Nspire CX or CX2 (or another acceptable model) is purchased, it can be used for all of the mathematics courses at APHS. It is a four-year investment.
- While it is generally helpful for a student to own their own calculators so that they can practice calculator fluency as they work on homework, all of the teachers have classroom sets of calculators which can be used at school. If purchasing a calculator presents a financial hardship, students will always have this option.
- If students or families have other Texas Instruments calculators (such as a TI 84 or TI 83), reach out to the current math teacher to ask about using it in class.
- If purchasing an Nspire, make sure to get the CX or CX2 model and not the CAS. The Nspire CAS is not allowed on New York State Regents exams.

Below are the current offerings from the Mathematics department:

Algebra I

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: The recommended prerequisite is an average of 85% or better in Middle School Math classes.

Description: Algebra is the foundation for all future Math courses. Since this course will move at a faster pace, it is recommended for students who have attained mastery of prerequisite skills and are motivated to put in the extra time and effort necessary to learn at this pace. The curriculum follows the Next Generation Learning Standards, and topics include reasoning and problem-solving, solving and graphing equations and inequalities, functions, systems, sets, statistics and data analysis, probability, and quadratic equations.

Notes: A TI-Nspire CX graphing calculator is recommended. Students will take the Algebra 1 Regents Exam in June. Successfully passing a Math Regents exam is a requirement for all Regents Diplomas. (It is the first of three exams necessary for an Advanced Regents Diploma.)

Elective: No

Algebra I with Extension:

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Middle School mathematics courses. This course is recommended for most incoming Freshmen.

Description: Algebra is the foundation for all future Math courses. Having strong Algebra skills will prepare students to be successful in all future math courses. Algebra 1 with Extension offers more time for students to learn and process the curriculum within a single year. The class will meet for a full block one day and a half block the next day. Engaging with math daily provides students the opportunity to achieve greater retention, fluency, and confidence. The curriculum follows the Next Generation Learning Standards, and topics include reasoning and problem-solving, solving and graphing equations and inequalities, functions, systems, sets, statistics and data analysis, probability, and quadratic equations.

Notes: A TI-Nspire CX graphing calculator is recommended. Students will take the Algebra 1 Regents Exam in June. Successfully passing a math Regents exam is a requirement for all Regents Diplomas. (It is the first of three exams necessary for an Advanced Regents Diploma.)

Elective: No

Algebra A / Algebra B:

Length: 2.00 yr.

Credits: 2.00 cr.

Prerequisites: This two-year sequence is designed for students who did not meet with success in Math while in middle school or students who feel that they would benefit from instruction that is delivered at a slower pace spread over two years.

Description: Algebra is the foundation for all future Math courses. Having strong Algebra skills will prepare students to be successful with any future math curriculum. Algebra A/B spreads the Algebra curriculum over two years. Students will benefit from the additional time used to reinforce and build on prerequisite skills, gain greater fluency, and process new information at a manageable pace. Students will earn two math credits for this course and will be prepared to take the Algebra 1 Regents Exam in June of the second year. The curriculum follows the Next Generation Learning Standards, and topics include reasoning and problem-solving, solving and graphing equations and inequalities, functions, systems, sets, statistics and data analysis, probability, and quadratic equations.

Notes: A TI-Nspire CX graphing calculator is recommended. Students will take the Next Generation Learning Standards Algebra Regents Exam in June. Successfully passing a math Regents exam is a requirement for all Regents Diplomas. Following this course, students can earn their third math credit through Geometry or any of the math electives.

Elective: No

Algebra II

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Algebra I NGLS and Geometry NGLS

Description: This is the final course in a sequence leading to an Advanced Regents Diploma. Previous knowledge of algebraic techniques are extended to work with functions and various types of equations. This class follows the common core Algebra II standards adopted by NYS. Specific topics included in this rigorous curriculum include sequences and series, exponents and logarithms, quadratics and complex numbers, polynomials, trigonometry, probability, and statistics. An appropriate graphing calculator is required (either the TI-84 or TI-nspire graphing calculator are recommended).

Notes: Students will take the New York State Common Core Algebra II Regents Exam at the end of the year, which is the last of three mathematics regents exams required for an Advanced Regents Diploma.

Elective: No

Fundamentals of Geometry:

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This is a 1 year, non-Regents, Geometry course which will allow for students to engage in our core Geometry program without taking the associated Geometry Regents Exams. Students will earn one local Math credit. This course is designed for students who would like to engage with Geometry learning standards in a more hands-on way, and without taking the Regents exam. This course is recommended for students who may have struggled with Algebra I, are not looking to complete an Advanced Regents Diploma through a Math Pathway, and would like to explore Geometry in a non-traditional manner.

Elective: No

Geometry:

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: The recommended prerequisite is an average of 85% or better in Algebra 1 or Algebra 1 with Extension.

Description: The Geometry Curriculum covers an extensive vocabulary and many new concepts. Since this course will move at a faster pace, it is recommended for students who have attained mastery of prerequisite skills and are motivated to put in the extra time and effort necessary to learn at this pace. The curriculum follows the Next Generation Learning Standards. Topics covered will connect coordinate, Euclidean, and transformational geometry, while introducing students to Geometric proofs.

Notes: A TI-Nspire CX graphing calculator is recommended. Students will take the NYS Geometry Regents Examination in June, which is the second of three exams required for an Advanced Regents Diploma.

Elective: No

Geometry w Extension:

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Algebra. Based on the rigor of the content associated with Geometry, this is the course recommended for most students planning to take the Geometry Regents Exam.

Description: The Geometry Curriculum covers an extensive vocabulary and many new concepts. Geometry with Extension offers more time for students to learn and process the curriculum within a single year. The class will meet for a full block one day and a half block the next day. Engaging with math daily provides students the opportunity to achieve greater retention, fluency, and confidence. This will help to prepare students for successful mastery of the learning standards needed for this course, the Geometry Regents exam, and the potential attainment of an Advanced Regents Diploma. Topics covered will connect coordinate, Euclidean, and transformational geometry, while introducing students to Geometric proofs.

Notes: A TI-Nspire CX graphing calculator is recommended. Students will take the NYS Geometry Regents Exam in June, which is the second of three exams required for an Advanced Regents Diploma.

Elective: No

Topics in Geometry

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Algebra A/B, Algebra 1 with Extension, or Algebra 1.

Description: This is a 1-year Geometry course that will allow students to engage in the Geometry curriculum without taking the Geometry Regents Exams. This course is designed for students who would like to explore a variety of topics in Geometry in a more hands-on way.

Notes: This course is *not* intended to prepare students for the Geometry Regents Exam. It is recommended for students who may have struggled with Algebra I and are *not* looking to complete an Advanced Regents Diploma.

Elective: No

Pre-Calculus

Length: 1.00 yr.

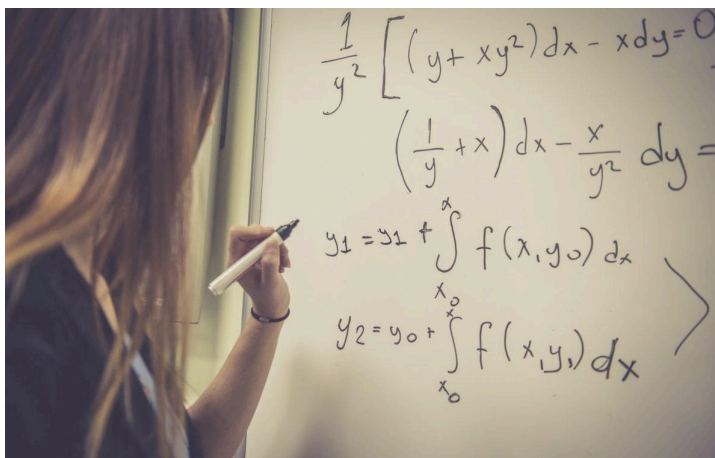
Credits: 1.00 cr.

Prerequisites: Successful completion of Algebra II

Description: This course prepares the student to take a calculus course at the college level. Topics include theory of equations, functions, trigonometry, analysis of graphs of polynomials and rational expressions, exponential and logarithmic functions, and an introduction to derivatives.

Notes: The midterm in January and the final exam in June are both Local School Exams.

Elective: Yes



Calculus I -College (Calc with Pre-Calc)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of one of the following: (1) a passing score on the Common core Algebra II Regents and an average of 85% in Algebra II is highly recommended; or (2) Pre-calculus.

College Credit: This course has the option for students to receive college credit from Hudson Valley Community College for the Spring semester only. This portion of the course is comparable to Math 180 as offered on the college campus.

Fees: Tuition for College in the High School program thru Hudson Valley Community College (optional).

Description: This is a full-year course that integrates Precalculus topics into the concepts and techniques of Calculus I. Semester I will focus on precalculus topics of algebraic functions, graph behavior, exponentials, logarithms and unit circle trigonometry. Semester II will explore the two branches of calculus; differentiation and integration. Limits, continuity, derivatives, integrals and the applications of differentiation and integration will be taught incorporating topics learned in Semester I.

Notes: The midterm in January and the final exam in June are Local School Exams. Students choosing to enroll in the College in the High School program will have a second grade calculation for a HVCC grade.

Elective: Yes

Advanced Placement Calculus (BC) -College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Calculus I

College Credit: The student may receive college credit based on the AP exam score.

Fees: The exam fee is approximately \$100.00 due by November 1st.

Description: Topics include limits, derivatives, and integration of algebraic, trigonometric and transcendental functions, as well as applications of derivatives and integrals to parametric and polar curves and arc length. Differential equations and applications such as logistic growth, sequences and series, conditional and absolute convergence, power series, and Taylor and MacLaurin series.

Notes: An appropriate graphing calculator is required for the course. This course will prepare students to take the Regents exam in May.

Elective: No

Financial Algebra

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Juniors or Seniors only

Description: By combining algebraic and graphical approaches with practical business and personal finance application, Financial Algebra, motivates high school students to explore algebraic thinking patterns and functions in a financial context. Financial Algebra will help students achieve success by offering an applications based learning approach incorporating Algebra I NGLS , Algebra II, and Geometry topics. Financial Algebra encourages students to be actively involved in applying mathematical ideas to their everyday lives.

Notes: The final exam in June is a Local School Final Exam.

Elective: Yes

Project Based Mathematics

Length: 0.50 yr.

Credits: 0.50 cr.

Description: Knowledge of mathematics is increasingly important in today's society. Environmental and economic issues dominate modern life and behind these issues are complex matters of science, technology, and mathematics that call for an awareness of fundamental principles. To encourage development of such awareness, this course stresses the connections between mathematics and society. Students will study topics such as the math behind barcodes, fair division, game theories, patterns and much more. This course will heavily rely on projects as a way of demonstrating student learning and application of subject matter.

Notes: Students must be willing to complete multiple individual and/or group projects, along with presenting them to a group of their peers.

Elective: Yes

Introduction to Computer Science (WILL NOT BE OFFERED IN 2024-2025)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Geometry NGLS or successful completion of a computer science course and concurrent enrollment in Geometry NGLS.

Description: Through this introduction to computer science and computer programming, students will be exposed to the inner workings of the technology they so often use. In this course, students will showcase their creativity through creating and problem solving while being introduced to important fundamental topics of computer science. Using Python Multimedia Programming the course examines abstraction, computer organization, representation of information, history of computing, ethics, and the development and evaluation of algorithmic solutions.

Elective: Yes

Advanced Placement Statistics-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of one of the following: (1) a passing score on the Common core Algebra II Regents (an average of 85% in Algebra II is highly recommended); or (2) Pre-calculus.

College Credit: College credit is available through Hudson Valley Community College. Tuition costs are payable to HVCC

Description: Statistics are everywhere in the world around us, and the goal of this course is for students to understand statistics and make decisions from data. This course is equivalent to an introductory, non-calculus-based college course in statistics which is required for a large variety of college majors. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. This course will prepare students to take the Regents exam in May.

Elective: Yes

Intro to Video Game Development

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Currently taking Geometry NGLS or successful completion of Geometry NGLS

Description: In this multidisciplinary course, students will learn game theory, build original games, and explore careers in the video game industry. Open to all talents and experience levels, students will engage in collaborative, hands-on projects covering art/animation and graphic design, narrative writing, computer coding/programming, and more! Industry mentors will visit to share their experience, academic background, and career paths. Whether creatively or analytically-minded, students will master skills applicable to all careers, engage in meaningful learning experiences of student interest and enjoyment, and have fun doing it!

The course will consist of two large projects that students design and develop in groups: creating an original board game and creating an original video game. Our lessons employ Construct 3 (<https://www.construct.net/en>) as a video game engine. This program is web-based, very user-friendly, and Chromebook accessible. You may utilize Piskel (www.piskelap.com/) for game art/animation creation. This is also web based, very user friendly, and Chromebook accessible. The instructional materials we have designed for each are easy-to-follow and very informative. Even our colorblind teacher had success with this program!

Elective: Yes

Advanced Video Game Development

Length: 1.00 yr

Credits: 1.00 cr.

Prerequisites: Introduction to Video Game Development and Teacher Approval

Description: The goal of this brand new course is to build off of the interest developed in Introduction to Video Game Development and cultivate skills in a particular area of Video Game Development that interests you most. Then as a complete class work collaboratively to develop a complete game. This course will be supported with speakers from across the budding video game community in the Capital District. This will be an opportunity to experience at a high level the many different fields that exist in the Video Game development industry while working to excel in one.

Elective: Yes

Mathematics - Logic

Length: 0.50 yr.

Credits: 0.50 cr.

Description: Logic is the study of correct reasoning. Logic provides the principles to form a sound argument as well as to find flaws in unsound arguments. Understanding the principles of logic is imperative for higher level reasoning and has applications in mathematics, politics, computer science, philosophy, law, interpreting media, as well as in everyday discussion. In this course, we will study formal logic. We will learn the rules of operators such as “and”, “or”, and “not” along with working with conditional and biconditional statements. We will determine whether two statements are logically equivalent and whether an argument is valid or invalid, sound or unsound. Students entering this course should have good reasoning skills and understand the basics of geometric proof.

Elective: Yes

Statistical Reasoning in Sports

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Algebra I NGLS

Description: Statistics are everywhere in the world around us, and statistics courses are becoming more and more important for students of almost any discipline. This course covers a wide range of statistical topics while focusing on their applications in sports analysis. Students will take on the role of coaches, managers, team owners, and sports journalists as they analyze data to make conclusions. We cover not only the statistics in what we read in the newspapers, but also in how statistics are used to make management level decisions. Students will often be asked to choose and collect their own data which allows them to shape their own experience. While we will primarily use examples related to a variety of sports, the lessons learned will make students better consumers of statistics they encounter in any area. Rather than complex algebra, this course will focus on the use of technology and understanding the meaning of numbers in context. Topics covered may include but are not limited to: quantitative and categorical variables, correlation and regression, multivariable regression, probability distributions, significance tests, and comparisons.

Elective: Yes

Math in Art

Length: 0.50 yr.

Credits: 0.50 cr.

Description: This course bridges the gap between formal mathematics instruction and the beauty that mathematics displays in nature and art. Taught by a math teacher, "artistic ability" is not a requirement, however creative students, and those with a passion for creating are encouraged to sign up. Throughout the course, while learning about how math influences art, students will create examples showcasing what they learn. Topics could include: Fibonacci Sequences in nature, The Golden Rectangle in art and architecture, advanced constructions, tessellations and Islamic tiling patterns, and platonic solids and polyhedral builds.

Elective: Yes

Race in America: A Study of Race Using Data and Statistics

Length: 0.50 yr.

Credit: 0.50 cr.

Description: This semester-long course will allow students to explore race and racial inequity in America using data and statistics. Early on, emphasis will be placed on learning how to talk about race and creating a safe space to do so in the classroom. This process will involve classroom norm setting and community circles. We will also start out reviewing/learning the statistical skills necessary to perform statistical analysis. As we move through the course, students will learn the skills needed to analyze data to see how issues of race can correspond to these concepts. The course will culminate in an inquiry based project and presentation with students working and presenting in groups.

Elective: Yes

Data Science (WILL NOT BE OFFERED IN 2024-2025)

Length: 1.00 yr.

Credit: 1.00 cr.

Prerequisite: Successful completion of Algebra I NGLS

Description: Data is a part of our reality more than ever before with high paying job opportunities knocking at our door. In this course students will learn to understand, ask questions of, and represent data through project-based units. The units will give students opportunities to be data explorers through active engagement, developing their understanding of data analysis, sampling, correlation/causation, bias and uncertainty, modeling with data, making and evaluating data-based arguments, and the importance of data in society. At the end of the course, students will have a portfolio of their data science work to showcase their newly developed knowledge and understanding including making and evaluating data-based arguments, the power of data in society.

MUSIC PROGRAM PLANNING

All of the classes listed satisfy the NYS Art/Music Requirement.

Below are the current offerings from the Music department:

Concert Choir

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Concert Choir is for students in grades 9-12 who have achieved a proficient level of performing ability and musicianship and enjoy participating in a large performing group. Here students apply the techniques studied in their small group lesson to the interpretation of a variety of musical styles. They also work on developing their music literacy and emphasis is given to developing the individual voice. From this study, students learn to realize how their own personal talents can be used for the positive growth of the group. All students are required to participate in regular small group lessons, and in the performances throughout the year, as part of this class.

Notes: Grades 9-12

Elective: Yes

Concert Band

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Previous participation in band or approval from band director.

Fees: Students will need to purchase an instrumental lesson book (approximately \$10.00).

Description: Concert Band is for wind instrument and percussion students in grades 9-12 who wish to grow and improve in their abilities as a performer in a large ensemble, or any student wishing to learn one of the mentioned instruments. Emphasis is placed on developing listening skills and the ability to interpret and communicate both the composer's and conductor's intentions. Various musical styles and abilities will be learned throughout the course of the year. Students apply the instrumental techniques studied in their small group lesson to the interpretation of a variety of musical styles. Students also learn to realize how their own personal talents can be used for the positive growth of the group. All students are required to participate in regular small group lessons as part of this class.

Notes: Grades 9-12

Elective: Yes



Jazz Ensemble

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Students must be currently enrolled in either band or orchestra (this is a second elective), and have permission from Mr. Blostein. Since students will be receiving a lesson as part of Band or Orchestra, a second lesson is not required.

Description: Jazz Ensemble/Jazz Studies is for students in Grades 9-12 who have achieved an advanced level of performing ability and musicianship, who also enjoy participating in a traditional jazz performing group. Here students apply the instrumental techniques studied in their small group lessons and large ensemble (be that band or orchestra) to the interpretation of a variety of jazz musical styles. Emphasis is placed on developing listening skills, improvisation in multiple styles and formal structure in both large and small ensemble settings, understanding musical nuance and the ability to interpret and communicate musically both the composer's and director's intentions. Students also learn to realize how their own personal talents can be used for the positive growth of the group.

All students are required to participate in regular small group lessons as part of this course.

Jazz Ensemble is typically open to saxophone, trumpet, trombone and rhythm section musicians, although others have been included in the past. The ensemble performs outside the school day several times a year.

This course runs concurrently with Jazz Studies. Students in Jazz Ensemble are required to attend all rehearsals, complete all coursework and participate in all performances.

Jazz Ensemble students earn a letter grade, and **MUST** attend every class meeting. Jazz Studies students earn a Pass/Fail grade, and **MUST** attend either the Morning OR Afternoon rehearsals in a given week. Additionally, the students in this course attend all rehearsals in a week, even if only partial rehearsals, as much as their schedule allows.

It is expected that all students are eager participants in the ensemble, regardless of which course they are in, and attendance and participation is a high priority for each.

Please note – this class meets on Tuesday and Thursday mornings from 6:50-7:20, and on Wednesday afternoons from 3:30-5:00. Students are responsible for their own transportation.

Elective: Yes

Jazz Studies

Length: 1.00 yr.

Credits: Pass/Fail

Prerequisites: Students must be currently enrolled in either band or orchestra (this is a second elective), and have permission from Mr. Blostein. Since students will be receiving a lesson as part of Band or Orchestra, a second lesson is not required.

Description: Jazz Studies is for students in Grades 9-12 who have achieved an advanced level of performing ability and musicianship, who also enjoy participating in a traditional jazz performing group. Here students apply the instrumental techniques studied in their small group lessons and large ensemble (be that band or orchestra) to the interpretation of a variety of jazz musical styles. Emphasis is placed on developing listening skills, improvisation in multiple styles and formal structure in both large and small ensemble settings, understanding musical nuance and the ability to interpret and communicate musically both the composer's and director's intentions. Students also learn to realize how their own personal talents can be used for the positive growth of the group.

All students are required to participate in regular small group lessons as part of this course.

Jazz Studies is typically open to saxophone, trumpet, trombone and rhythm section musicians, although others have been included in the past. The ensemble performs outside the school day several times a year.

Students in the rhythm section (keyboard, guitar, bass and drums) must audition each year, due to a high level of interest in these spots. Previous participation in jazz ensemble / jazz studies and grade level, while a factor in acceptance, is not a guarantee of acceptance in the upcoming year. Rhythm section spots are limited to 1 keyboard, 1 guitar, 1 bass and 2 drums/auxiliary spots. Those auditioning will be placed in acceptance order. Those not accepted are strongly encouraged to take "Introduction to Modern Ensemble Performance" (which is a good option for those accepted as well).

Jazz Studies students are expected to attend all rehearsals, complete all coursework and participate in all performances.

Note : This class meets on Tuesday and Thursday mornings from 6:50-7:20, and on Wednesday afternoons from 3:30-5:00. Students are responsible for their own transportation. Students earn a Pass/Fail grade, and MUST attend either the Morning OR Afternoon rehearsals in a given week. Additionally, the students in this course attend all rehearsals in a week, even if only partial rehearsals, as much as their schedule allows. It is expected that all students are eager participants in the ensemble, and attendance and participation is a high priority for each.

Elective: Yes

Orchestra

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Previous participation in orchestra or approval from orchestra director.

Fees: Students are required to purchase a lesson book (approximately \$10.00).

Description: Orchestra is for orchestral string students (violin, viola, cello, double bass) in grades 9-12 who wish to grow and improve in their abilities as a performer in a large ensemble, or any student wishing to learn one of the mentioned instruments. Emphasis is placed on developing listening skills and the ability to interpret and communicate both the composer's and conductor's intentions. Various musical styles and abilities will be learned throughout the course of the year. Students apply the instrumental techniques studied in their small group lesson to the interpretation of a variety of musical styles. Students also learn to realize how their own personal talents can be used for the positive growth of the group. All students are required to participate in regular small group lessons as part of this class.

Elective: Yes

Independent Study – Instrumental Lessons

Length: 1.00 yr.

Credits: Pass/Fail 1.00 cr.

Prerequisites: Approval from Instrumental Music Director.

Fees: Students are required to purchase a lesson book (approximately \$10.00).

Description: Independent Study Instrumental Lessons are for any student in grades 9-12 who wish to learn, grow and improve in their abilities as a performer on a band or orchestra instruments. Emphasis is placed on developing pedagogically accurate skills on the instrument of the student's choosing, learning basic music theory and music reading skills, and gaining proficiency as an instrumental performer. Lessons are part of the rotating pull out lesson schedule. Depending on availability and student level, students will likely be part of a larger group lesson with students currently in the band or orchestra program.

Elective: Yes

Treble Voices

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Concert Choir

Description: Treble Choir is a select ensemble for students in grades 10-12 who have at least one year of successful participation in Concert Choir. The ensemble is selected based off of an audition that includes the performance of a solo and showing a proficiency at sight reading skills. All members must re-audition each year. The ensemble performs a difficult level of repertoire in various languages and musical styles at multiple performances throughout the year. Students will continue to develop their literacy and technique in small group lessons. From this study, students learn to realize how their own personal talents can be used for the positive growth of the group. All students are required to participate in regular small group lessons as part of this class.

Elective: Yes

Music in Our Lives

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course is for students with an interest in popular music and learning basic instrumental skills (piano and guitar) that are not based in ensemble performance. Students will be able to explore composition in basic song from using basic Music Theory elements. The class will consist of the following: Basic Music Theory, Basic Piano Skills, Basic Guitar Skills, Personal composition unit. Students will be able to exhibit proficiency by interpreting, writing and performing music for the class.

Elective: Yes

Music Theory- College (WILL NOT BE OFFERED IN 2024-2025)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Grades 10-12, recommendation by Music Faculty, through successful completion of at least one full credit of a high school performance ensemble with an average of 80 or better, availability in student schedule to take theory in addition to a performance ensemble, and student participation in music department activities. College Credit: This course has the potential for students to receive college credit from Schenectady County Community College.

College Credit: This course has the potential for students to receive college credit from Schenectady County Community College.

Description: The theory course will provide students with detailed knowledge on the language of Western Music. The course will focus on literacy, analysis (auditory and written) and composition of music. It will provide students an opportunity to further develop their musical knowledge, allowing them to prepare for college entrance exams. They will take an in-depth look at how to read and write music.

Elective: Yes

Introduction to Modern Ensemble Performance

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course is offered to students with an interest in growing their skills on instruments in a modern small (3-6 members typically) performance ensemble – whether that be a rock band, jazz combo, or some other small performance group. (Traditional folk musicians are encouraged to participate, but do so with the knowledge that the course is conceived to focus on more modern ensembles). Since students will enter the course with a wide variety of backgrounds and previously learned skills, this course will focus on fundamentals of performance within small ensembles.

Students will learn to read and interpret lead sheets as a guide to realizing a musical performance, learn about chord voicing, ensemble balance, performance form and style, evaluate (in a critique manner) various performances, and will learn the basics of how guitar, electric bass, drumset and keyboard work, through performance skills on each.

Students can expect to perform regularly during class. As such, students are expected to provide their own equipment for use in the class (except drumset and amplifiers, although students will need their own instrument cables). Outside of the school day performances are not anticipated to be part of the course curriculum at this time.

Students enrolled in this course may be asked to perform at functions with the jazz ensemble, should an opening arise.

Notes: Students must be enrolled in band, orchestra or jazz ensemble, or have obtained permission from the director of instrumental music (this is typically done in the spring prior). Students must be in grade 11 or 12.

Elective: Yes

Music Production and Engineering

Length: 1.00 yr.

Credit: 1.0 cr.

Prerequisites: Students enrolled in band, orchestra, choir or jazz ensemble will have first

priority; others must have obtained permission from the director of instrumental music (this is typically done in the spring prior), to ensure a minimum level of musical competency prior to taking the course. This course is NOT a replacement for participation in a performance ensemble. Students must be in grade 11 or 12.

Description: Music Production and Engineering introduces students to the world of recorded and live music production. The course is ideal for students looking to record themselves performing, record others, or be part of a live performance experience. A background in music is a critical aspect of this course, although it is anticipated students taking the course will have wide and varied backgrounds.

This course provides both theoretical and hands-on knowledge of how the technology side of music works. Students will learn to use technology to aid in recording and live music, learn proper use and setup of microphones and amplifiers, learn the basics of how this equipment is designed and how it functions, as well as the basics of how to create electronic music through the use of pre-recorded sounds and sounds they record and/or create themselves. Much of this course will focus on computer-oriented musical creation. This is primarily a project-based course.

Elective: Yes

OTHER PROGRAM PLANNING

Below are the current offerings:

App Suite: Digital Portfolios

Length: 0.50 yr.

Credits: 0.50 cr.

Grading: Pass/fail

Description: Throughout the semester, you will operate a technology help desk, assisting peers and faculty with various digital challenges while simultaneously undertaking a semester-long project centered around digital portfolios. When you are not assisting faculty and their peers with technology related problems, you will embark on a project-based learning journey focused on creating and curating digital portfolios. Through this process, you will explore various platforms and tools for portfolio creation, reflect on their learning experiences, and showcase their skills and achievements in a digital format. This project will not only cultivate digital literacy and creativity but also encourage self-directed learning and reflection. Under guidance from the district technology office, App Suite staff troubleshoot tech issues, repair devices, and support faculty and peers with BYOD challenges. You'll engage in creating tutorial videos, exploring new tools, and providing direct instruction. Additionally, you'll participate in STEAM challenges, Fab Lab projects, software evaluations, and TED Talks to foster independent learning. Develop critical thinking skills and self-motivation while serving your school community! If you seek student-guided learning and want to explore a passion of yours more, this course is for you!

Elective: Yes

Career Exploration Internship

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: 12th Grade

Description: This is an opportunity for students to become workforce ready while exploring a career of interest through a self selected job shadowing experience at local businesses. It will be a chance to gain an understanding of the business world and apply business knowledge through practical experience. Students will focus on professional success skills important in the business world while developing an understanding of universal terms. Pre-employment and occupational literacy will be a primary focus. Organizational makeup of businesses will be explored as well as budgeting. There will be a focus on preparing the student to master the application process, be interview ready, and be ready to contribute to a professional project. The student needs to be self-directed in the exploration of a career and have the desire to develop strong communication skills. Participants will maintain a journal of the work experience as they participate in a shadowing experience guided by a mentor. The student will develop a career based thesis to research. The knowledge gained through research and experience will be presented in a reflective final project. Note: Students enrolled must provide their own transportation to and from experiences outside of school.

Elective: Yes

College Readiness & Research Skills - College

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Junior or Senior status

College Credit: Students have the opportunity to receive 1 college credit at successful completion of course assignments and final projects through Hudson Valley Community College.

Fees: The student is responsible for an exam fee (approximately \$66), but adjustments can be made in cases of hardship.

Description: This semester course is divided into 2 sections for the college-bound student. Section 1 is College Readiness. It covers such topics as college application process & deadlines, FAFSA process, career exploration, how to find the right college, college support for all students, college support for students with special needs, college life & first year expectations, etc. Naviance will be integrated in this portion. Section 2 is Library Skills for Research and provides an introduction to library research and information literacy. Content will focus on how to create a research strategy for finding, retrieving, using and evaluating information in print and electronic formats including the Internet. Also covered will be many of the academic, legal and ethical issues relating to information. Skills gained can be applied to research papers, projects, professional and personal information needs. This section provides a full college credit at HVCC and SUNY Schools

Notes: Fall Semester Course is for Senior Level students. Spring Semester Course is for Junior Level students.

Elective: Yes

Entrepreneurship and Marketing (NOT OFFERED 2024-2025)

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Anticipated grade level for this course is 11th-12th grade. The prerequisite to enroll is the suggested completion of one technology course at any level. (Technology, Construction or Digital Art based.)

Description: This course is an opportunity for students to become self-employment ready. It focuses on what owning and operating a business involves. Students will be introduced to the essentials of how to start and successfully run a small business. Topics will include business structures like franchising, sole-proprietorships and corporations. A strong focus will be on communications, styles of management, and marketing, while exploring the potential for a product or service. It will be a chance to gain an understanding of the business world and apply business knowledge through practical application examples. Students will be taught professional skills of the business world. The introduction to this course includes understanding the business world in universal terms. The legal aspects of starting a small business will be explored. Students will create a marketing plan for a product or service and present information through the use of Microsoft and Google applications. Students will learn to utilize various resources available through the internet and government agencies pertaining to starting a small business. Students will propose and develop a business plan for a product or service, including a prototype of the product when applicable. There will be an opportunity for participants to analyze the demand for their product and research the manufacturing aspects of development. The course will have a strong focus on business organization principles and ethical practices for students wanting the valuable knowledge to become an effective leader, manager or an entrepreneur in the future.

Notes: Half Year .5 credit for those wanting to focus on principles only. Full Year Course 1 credit for those who want to continue with product development.

Elective: Yes

Adulting 101 A Balancing Act: School, work, social, and wellness

Length: 0.50 yr.

Credits: 0.50 cr.

Description: As simple as all this seems, many young people genuinely struggle with the daily tasks of being an adult. Domestic skills taught help young adults maintain a household, care for their personal belongings, and gain skills needed to find and maintain employment. This class can address a wide range of other skills that anyone may be interested in learning or honing. Soft skills include listening, negotiating, reading body language and feeling empathy. Navigating adulthood isn't easy, it can be difficult for this generation to understand the necessity of learning certain skills to attain their chosen lifestyle. Adulting 101 can help young adults become capable, responsible and self-sufficient adults and handle life's little emergencies with skill, purpose, and grace. In the process, they can set themselves up for reduced stress and greater success across all of life's domains.

Notes: This is a Fall Semester Course that is offered to 9th and 10th grade students.

Elective: Yes

Adulting 102 A Balancing Act: School, work, social, and wellness

Length: 0.50 yr.

Credits: 0.50 cr.

Description: It begins with theories on happiness and identifying, exploring, and practicing the important characteristics of leading a happy life. Adulting 102 allows students to gain skills and knowledge of useful information that will help them be successful in an ever changing world. Each semester is packed full of important life skills and tools necessary to live independently. Topics include: money management, community engagement, conflict resolution, career and future education, home skills and much more.

Notes: This is a Spring Semester Course that is offered to 11th and 12th grade students.

Elective: Yes

PHYSICAL EDUCATION PROGRAM PLANNING

Physical Education is an instructional program contributing to the physical, mental, and social development of all students. The broad instructional phase of the program provides for a wholesome, vigorous experience in the development of skills, techniques, knowledge and the appreciation of individual, team, and lifetime athletic activities. Activities are offered for girls, boys, or on a coeducational basis.

Note: Physical Education is required for graduation. Students must successfully pass Physical Education each semester of their four years in high school as well as meet all NYS Standard requirements including fitness criteria. Success is based primarily on active participation. Students who fail Physical Education must take double P. E. classes every semester until they attain the correct number of credits.

Students must choose one or two of the Physical Education strands. If students choose only one, they will be scheduled for that option for both semesters.

Below are the current offerings from the Physical Education department:

Lifetime Activities

Length: 0.50 yr.

Credits: 0.25 cr.

Description: This course develops further understanding of fitness components for lifelong health such as: hand eye coordination, aerobic exercise, cardiovascular endurance, and strategies for a healthy lifestyle. Emphasis is on individual and team sports that students can participate in throughout their lifetime. Examples include, but are not limited to: Soccer, ultimate frisbee, tennis, hiking, golf, badminton, volleyball and cooperative games.

Notes: Grades 9-12.

Elective: No

Strength and Conditioning

Length: 0.50 yr.

Credits: 0.25 cr.

Description: This course develops muscular strength, agility, flexibility and aerobic fitness for all students. Emphasis is on developing proper technique and progressions of strength training to improve muscular strength, power, endurance, speed, coordination and physical conditioning.

Notes: Grades 9-12.

Elective: No

Team Sports

Length: 0.50 yr.

Credits: 0.25 cr.

Description: This course develops tactical skills, concepts and strategies for team sports. Emphasis is on working together, communication, sportsmanship, team play and skill development. Examples include, but are not limited to: Football, Basketball, Cavotta ball, Floor Hockey and Softball.

Notes: Grades 9-12.

Elective: No



SCIENCE PROGRAM PLANNING

Requirements in Science:

Regents courses have a state mandated requirement of written reports covering 1200 minutes of laboratory experience. These requirements must be satisfied in order for a student to qualify to write a final Regents examination.

Regents Diploma: 3 science credits with a 65 or better on any one Regents science exam.

Advanced Regents Diploma: 3 science credits with a 85 or better on any two science Regents exams.

**To earn an Advanced Regents with Honors Diploma, a student must achieve an overall average of 90% for all Regents examinations taken.

Grade Level:	8th	9th	10th	11th	12th
Accelerated/ Honors Path	Earth & Space Sciences	H Biology or Life Science: Biology(R)	H Chemistry or R. Chemistry	Physics* R or AP* AP Bio*/ The Gene/Human* Brain/Horticulture/ Environmental Science	Physics* R or AP* AP Bio*/ The Gene/Human* Brain/Horticulture/ Environmental Science

Traditional (Advanced Regents Diploma) Path	General Science	Earth & Space Sciences	H Biology or Life Science: Biology(R)	H Chemistry or R. Chemistry	Physics* R or AP* AP Bio*/ The Gene/Human* Brain/Horticulture/ Environmental Science
Traditional (Regents Diploma) Path	General Science	Earth & Space Sciences	Life Science: Biology(R)	H Chemistry, R Chemistry, or G Chemistry	Physics* G, R, or AP* AP Bio*/ The Gene/Human* Brain/Horticulture/ Environmental Science
General Path	General Science	Earth & Space Sciences	Life Science: Biology(R)	R Chemistry, G Chemistry Or Science elective	Physics G or R* The Gene/Human* Brain/Horticulture/ Environmental Science

It is strongly recommended that all students take Physics before leaving high school

G = General (no Regents) R = Regents H = Honors AP = Advanced Placement

* = Students can receive Hudson Valley Community College credit

Below are the current offerings from the Science department:

Science - Earth & Space Sciences

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course is designed to deliver the physical setting Earth and Space Sciences curriculum, and expose students to a learning environment in which active participation in laboratory experiences is the focal point. All learning activities are oriented towards an inquiry approach with the student as investigator. The course content stresses an analysis of the environment and the processes that affect it. The final examination in this course is the Regents examination and the laboratory requirement must be met in order to qualify to take the examination.

Notes: The NYS Regents Exam in Earth and Space Sciences is given at the end of this course, including a lab practical, pending successful completion of the required lab hours.

Elective: No

Science - Life Science: Biology(R)

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course delivers the Regents Life Science: Biology Curriculum and meets the Life Science requirement for graduation. This course is designed to be a lab-based course with an emphasis on inquiry skills and the interconnectedness of all living things. The intent is to provide hands-on and active practice of content within the classroom. Topics covered will be Ecology, Cell Biology, Biochemistry, Genetics and Heredity, Biotechnology, Human and Plant Systems, Classification and Evolution.

Notes: The NYS Life Science: Biology Regents Exam is given at the end of this course pending successful completion of required lab hours.

Elective: No

Science - Biology- Honors

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: A minimum of 85% on the Earth and Space Sciences Exam.

Description: This course delivers the Regents Life Science: Biology Curriculum and meets the Life Science requirement for graduation. It covers the same topics as the Life Science: Biology course but goes into more depth and detail. A comprehensive understanding of molecular biology drives the content in each unit. The influence of genes on cellular processes will be studied and applied to topics in cell biology, genetics, evolution, ecology, and biotechnology. Other topics covered include human physiology. Emphasis in this course is placed on laboratory work; students are expected to be able to follow lab procedures and to design simple experiments. In order to be successful, students in this course need to be independent learners, and able to read and interpret a higher level textbook.

Notes: The NYS Life Science: Biology Regents Exam is given at the end of this course pending successful completion of required lab hours.

Elective: No

Science - Advanced Placement Biology-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Regents Biology and Chemistry..

Fees: The AP Biology exam fee is approximately \$100.00. Students must also pay any applicable Hudson Valley tuition fees in order to receive credit through Hudson Valley Community College.

Description: AP Biology is an intensive course designed to be the equivalent of an introductory biology course taken in college. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. The emphasis is on developing an understanding of biological concepts rather than an accumulation of facts. Classes include laboratory periods that meet every other day as well as lecture periods that meet every other day when laboratory class is not in session. This course will prepare students to take the AP biology Exam in May.

College Credit: This course has the potential for students to receive college credit from Hudson Valley Community college, based on grade and tuition costs. This course is comparable to Hudson Valley Community College course BIOL 150/151. College credit may also be received based on the AP exam score.

Notes: Summer reading/ assignment is required.

Elective: Yes

Science - General Chemistry

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Biology/Life Science: Biology

Description: General Chemistry is a full year science course for those Juniors and Seniors not enrolled in a Regents science sequence. It meets for one block every other day and satisfies the third year science requirement for graduation. The course is designed to increase awareness of chemistry in the real world. It is filled with lab-based activities and skill building exercises. Topics include water chemistry, minerals and moles, chemical reactions, radioactivity and the periodic table.

Elective: Yes



Science - Chemistry R

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course of study presents a broad view of chemistry for motivated, abstract thinking students preparing for college in any course of study. Topics covered include matter and energy, atomic structure, bonding, periodic table, mathematics of chemistry, acids and bases, kinetics, equilibrium, and organic chemistry. The final exam in this course is the State Regents examination and a laboratory requirement of 30 lab hours must be met in order to qualify to take the exam. Students should be aware that Chemistry R requires a minimum of 30 minutes daily study time in addition to any assignment given by the instructor.

Notes: It should also be noted that Chemistry R and General Chemistry follow very different course sequences and students enrolled in one course cannot be switched to the other, following the drop/load period. As per state regulation, graphing calculators are not permitted for use on the state exam. Suggestions for successful completion: Students enrolling in Chemistry R should earn a score of 80% or better on the Life & Space Sciences, and Life Science: Biology regents exams, and 80% or better overall course average in Algebra I NGLS and Geometry NGLS courses, or teacher recommendation. Students who are not on an accelerated math/science track should be concurrently enrolled in at least Algebra 2 or a more rigorous math.

Elective: No

Science - Chemistry R Honors

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: In order to enroll in Chemistry R Honors, a student should have concurrent enrollment or successful completion of Geometry and achieved at least a 90% on the Earth & Space Sciences and Life Sciences: Biology Regents exams, and at least a 90% or better overall course average in Algebra I NGLS.

Description: This is a concentrated course for the motivated student who plans to enroll in any college science course. Chemistry Honors will cover the Regents Chemistry curriculum plus additional advanced topics necessary to take the SAT II in Chemistry. There is a final exam on the advanced topics in addition to the Chemistry Regents exam taken in June. A laboratory requirement of 30 lab hours must be met in order to qualify to take the state exam. Classes meet daily with extended laboratory periods every other day.

Notes: As per state regulation, graphing calculators are not permitted for use on the state exam; scientific and four-function calculators are allowed.

Elective: No

Science -* Physics R-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: 80% or above in Algebra II, 85% or above in Chemistry, concurring enrollment in pre-calculus or calculus.

Description: This course presents a modern view of physics with the major emphasis placed on the fundamental concepts underlying this basic science. There is an increasing demand for workers with more training and understanding of physics at all levels of ability. Major themes of the course are Mechanics, Energy, Wave Theory, Modern Energy, Electricity, and Magnetism. Unity of physics is stressed. Students who intend to continue study in any science-based technical field should be encouraged to enroll in this course. A definite effort is made to develop college level thinking and organizational skills. Projects are required every quarter and a final field trip to an amusement park culminates the year's laboratory studies. There will be a mid-term and the final examination in this course is the Regents examination. The laboratory requirement must be met in order to qualify to take the examination. Classes meet daily with extended laboratory periods. This course has the potential for students to receive 3 college credits from Hudson Valley Community College, based on grade and tuition costs. This course will prepare students to take the Regents exam in May.

Elective: Yes

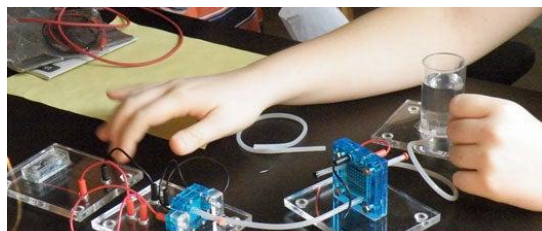
Science - * General Physics

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Applied physics is an introductory course in physics; it is designed for the student that does not meet the Regents Physics prerequisites. Curriculum includes 1D & 2D motion, work, energy & power, momentum, circular motion, forces, and electricity & magnetism. We complete many lab activities including studying motion, projectiles, catapults, frictional force, mechanical advantage, and electrical circuits & resistance. Successful completion of Regents Chemistry is advantageous to understanding the introductory concepts encountered in the class. Calculations include basic algebra, using the quadratic formula and the sin, cos and tan functions. Graphing is extensively used to interpret experimental results, specifically determining the appropriate formulas and equations for lines. The class meets every other day for a block and culminates in a final project that entails a trip to the amusement park and construction of a roller coaster.

Elective: Yes



Science- * Advanced Placement Physics 1- College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: 80% or above in Algebra II, 85% or above in Chemistry, concurring enrollment in pre-calculus or calculus.

Fees: The AP Physics exam fee is approximately \$100.00 and due by November 1. Students must also pay any applicable Hudson Valley tuition fees in order to receive credit through Hudson Valley Community College."

Description: This full year college level physics course will give students a solid foundation in college level understanding of motion and energy. Completion of this course will have laboratory requirements. This course will cover the following topics: Kinematics, Circular Motion and Gravitation, Simple Harmonic Motion- springs and pendulums, Rotational Motion and Torque, Momentum, and Energy. Students who would like to receive AP level credit for this course class will take the AP Physics exam in May, and upon successful completion, the student may receive college credit based on the AP exam score. This course will prepare students to take the AP Exam in May. This course has the potential for students to also receive 3 college credits from Hudson Valley Community College, based on grade and tuition costs." In this course, content required specific to the NYS Regents Exam in Physics will NOT all be covered. This course will prepare students to take the Regents exam in May.

Note: Summer reading and assignment is required

Elective: Yes

Science - Environmental Science

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Biology.

Description: This course provides opportunities to explore the environment and environmental issues that impact the planet and local communities. The focus will be on the interactions of organisms and the physical world, and the impacts of human activity on Earth's systems and human health. The goal is to develop the literacy, inquiry and critical thinking skills needed to address environmental challenges society is facing. Topics may include, but will not be limited to: Ecosystems, Human Population, Food and Agriculture, Resources and Conservation, Energy, Global Change and Sustainability.

Elective: Yes

Sustainable Horticulture I and II

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Grades 9-12, SH I is a prerequisite for SH II.

Prerequisites for Horticulture I: Successful completion of Life Science: Biology

Description: This new course will introduce students to the fascinating world of plants and gardening. Using the gardens and the greenhouse as our laboratory, students will create a community based garden

at APHS that will focus on how to grow, care for, and harvest plants in a sustainable and ecologically friendly way. Students will investigate topics in plant anatomy, classification, photosynthesis, plant health, soil management, pest and disease control, and careers in horticulture. The garden and the greenhouse will provide a classroom for making science come alive by inspiring active exploration, problem solving, and project based learning.

Elective: Yes



The Human Brain

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Should be co-enrolled in another APHS science course

Description: This laboratory brain science course addresses the fundamentals of neuroscience by stressing brain structure and function. Following the basics of neuroscience, students will investigate neuropsychological topics like sleep, neurodegeneration, neuroscience of art and music, language, love, emotion, happiness, exercise, CTE, and intelligence. Laboratory activities investigate synapse function, neuroanatomy (brain dissection), action potential, brain waves, optics, sensory systems, and neuron impulse. This is a user friendly, lab based class designed for anyone with a desire to learn more about how the brain works. Students taking this class will learn to optimize their brain's potential.

Elective: Yes

Topics in Biology-* The Gene-College

Length: 0.50 yr.

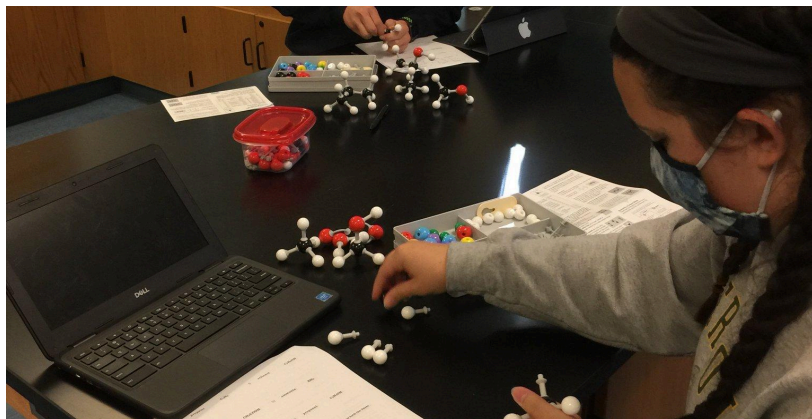
Credits: 0.50 cr.

Prerequisites: Life Science: Biology and should be co-enrolled in another APHS science course

College Credit: This course has the potential for students to receive college credit from Hudson Valley Community college, based on grade and tuition costs. This course is comparable to Hudson Valley Community College course BIOL 105.

Description: HVCC standards and curriculum form the foundation for this lab based course. Students will be held to the academic expectations of a higher level education institution. This course is an inquiry into the significance of genes and DNA in our everyday life. The personal, biological, political, and sociological implications of our ever-expanding understanding of genetics and heredity are discussed. The course also covers basic biochemical and cellular principles, human organs and their integration into various body systems, DNA, biotechnology, human development, human genetics, and major human diseases.

Elective: Yes



SOCIAL STUDIES PROGRAM PLANNING

Requirements:

Grade 9 - Global History & Geography I

Grade 10 - Global Hist. & Geography II

Grade 11 - U.S. History and Government

Grade 12 - Economics and Participation in Government

Below are the current offerings from the Social Studies department:

Social Studies 9-Global History & Geography I

Length: 1.00 yr.

Credits: 1.00 cr.

Description: This course, which covers world history from pre-recorded times (4,000 BC) through the 18th Century, is designed to provide students with an understanding of world cultures and civilizations. It includes an analysis of important ideas, social and cultural values, beliefs and traditions. This course also examines the human condition and the conditions of interactions of people across time and space and the different ways different people view the same event or issue from a variety of perspectives. Global History & Geography I is the first of a two-year sequence in Global History & Geography.

Notes: At the end of 10th grade, students will be required to take the Regents Exam in Global History and Geography II.

Elective: No

Social Studies 9-Global History & Geography I Honors

Length: 1.00 yr.

Credits: 1.00 cr.

Global 9 Honors:

Prerequisites: 90% average in grade 8 social studies, and a satisfactory grade on the qualifying examination and entrance process given in 8th grade.

Description: This course offers a more intensive study of world history from pre-recorded times (4,000 BC) through the 18th Century. It is designed to provide students with an understanding of world cultures and civilizations and includes an analysis of important ideas, social and cultural values, beliefs and traditions. The course also examines the human condition and the conditions and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives. Throughout the course, students will be exposed to demanding reading and writing exercises designed to prepare them for social studies advanced placement courses in their junior and/or senior years. Global History & Geography I Honors is the first of a two-year sequence in Global History & Geography. At the end of 10th grade, students will be required to take the Regents Exam in Global History and Geography II.

Elective: No

Social Studies 10-Global History & Geography II

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Global History & Geography I .

Description: This course, which covers world history from the 18th Century to present, continues the World History program begun in grade 9. Students will examine world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs and traditions. In addition, a study will be made of the human condition, and connections and interactions of people across time and space as well as ways different people view the same event or issue from a variety of perspectives. At the end of Global History & Geography II, students will be required to take the Regents Exam in Global History and Geography II.

Elective: No

Social Studies 10: Global History & Geography II Honors

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: The following average in 9th grade Global Studies: If coming from the 9 Honors class: 90% or higher; if coming from a Regents class: 93% or higher.

Description: This course offers a more intensive study of world history from the 18th Century to present. It is designed to provide students with an understanding of world cultures and civilizations and includes an analysis of important ideas, social and cultural values, beliefs and traditions. The course also examines the human condition and the interactions of people across time and space as well as the ways different people view the same event or issue from a variety of perspectives. Throughout the course, students will be exposed to demanding reading and writing exercises designed to prepare them for social studies advanced placement courses in their junior and/or senior years. Students will complete several in depth, student directed research assignments intended to develop a deeper understanding of the content and the contemporary issues and to develop advanced research and presentation skills. At the end of this course, students will be required to take the Regents Exam in Global History and Geography II.

Elective: No

Social Studies 11-United States History and Government

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Global History and Geography II.

Description: Grade 11 begins with the colonial constitutional foundations of the United States and explores the government structure and functions written in the Constitution. The development of the nation and the political, social, and economic factors that led to the challenges our nation faced in the Civil War are addressed. Industrialization, urbanization, and the accompanying problems are examined, along with America's emergence as a world power, the two world wars of the 20th century, and the Cold War. Students explore the expansion of the federal government, the threat of terrorism, and the place of the United States in an increasingly globalized and interconnected world. At the end of US History and Government, students will be required to take the United States History and Government Regents exam.

Elective: No

Advanced Placement United States History-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Overall Average of 90 or better in Global History and Geography 10 and an 85 or better on the Global History and Geography Regents

College Credit: The student may receive college credit based on the AP exam score.

Fees: The exam fee is approximately \$100.00

Description: This course is designed to enhance student interest in the study of United States history as well as provide them with the opportunity to participate in a college-level course and to help prepare for the academic demands at the collegiate level. This course will emphasize the chronological approach to United States history and will also examine specialized readings in United States history. Units of study will include the Colonial Period, American Revolution and the Federal Period, the Jacksonian Era, Civil War and Reconstruction, Populism and Progressivism, the New Deal and the Cold War Era. At the end of US History and Government, students will be required to take the United States History and Government Regents exam. This course will prepare students to take the AP exam in May.

Elective: Yes

Advanced Placement United States Government & Politics-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: An overall average of 90% or better in U.S. History and a 90% or better on the U.S. History Regents examination.

College Credit: The student may receive college credit based on the AP exam score.

Fees: The exam fee is approximately \$100.00

Description: AP United States Government & Politics is a full-year reading and writing intensive course. It is designed to provide students with an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. government and politics as well as its economic system and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. This course is organized around six concepts: America's Constitutional Underpinnings of Government; Political Beliefs and Behaviors; Political Parties, Interest Groups and the Mass Media; Institutions of National Government: The Congress, The Presidency, The Courts and The Bureaucracy; Public Policy; Civil Rights and Civil Liberties.

Notes: Students who successfully complete AP United States Government & Politics will earn credit for Participation in Government 12 course and Economics 12 course. This course will prepare students to take the AP exam in May.

Elective: Yes

Participation in Government

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of U.S. History and Government

Description: This course is designed to provide students with the knowledge of how public policy is formed, implemented and evaluated at all levels of government in a democratic society. In addition, students will probe how citizens can directly or indirectly interact with the public policy process. Citizen participation in a democracy, citizen participation in politics and citizen participation and public policy will be examined in depth.

Elective: No

Economics 12

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful Completion of U.S. History and Government

Description: Students will study the economic system of the United States and its operation, the components of this system, and their role in it as worker, investor, and voting citizen. They will examine the economic interdependence of the world today, the political and social impact of economic decisions, and the relationships between them. Students will also be expected to understand basic economic concepts to help them prepare to probe economic issues and concerns.

Elective: No

20th Century United States Military History

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Offered to Grades 11-12

Description: This half-year course will focus on the military history of the United States from the beginning of the twentieth century and into the twenty-first century. The course will explore and detail the major military campaigns the United States has participated in during this time period including, but not limited to: World War I and World War II. The Cold War (including Korea, Vietnam, and Latin America), the Gulf War, the global war on terrorism, and the current wars in Iraq and Afghanistan. Course objectives will focus on the geopolitical, economic, and social causes of war, how the United States military involvement in wars have affected our society, and how the actions of the United States military as directed by our government has impacted the rest of the world.

Elective: Yes

Current Events Elective

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Open to Grades 9-12.

Description: This course is designed for students coming of age in the global world. This half year course explores the current issues shaping our country and our world. Students will take part in discussion seminars, conduct research, project based learning, and create presentations that answer the questions in a globalized world. What challenges do we face? How might we overcome them? Students will investigate a range of issues such as conflict, child labor, poverty, environmental challenges, economic challenges, and human rights. This course will benefit those interested in pursuing a career or college program in international business, journalism, law, government, history, or related fields.

Elective: Yes

Introduction to Criminal Justice

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Global 10, with Grade 11 or 12 status

Description: This course is an introductory survey of the American criminal justice system with a view to its social and institutional context and its structure and functioning. We will explore, from a historical and systematic perspective, the institutions of the American criminal justice system and how they relate to each other. The course provides an overview of the foundations and components of the criminal justice system, including (substantive and procedural) criminal law, police, courts, and corrections. The main emphasis will be placed on the criminal justice process and how the various institutions of criminal justice interact. Key issues will be addressed as they arise at different stages of the process, such as the conflict between crime control and due process, and conflicts related to, for example, gender, class, and ethnicity.

Notes: Grades 11 -12th

Elective: Yes

Psychology 1

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Global 10, with Grade 11 or 12 status

Description: This course is designed to give you a general idea of what psychology is, what we have learned about ourselves, and how psychology is applied to help improve people's lives. The units are organized so that you can get a better idea of how psychology works: from basic theories and principles, through research, understanding and explaining results, to the actual application of psychological techniques. Topics include: Introduction and scientific foundations of psychology, the biological bases for psychology, sensation and perception, learning, cognitive psychology and motivation, emotion and personality.

Notes: This elective class does not replace the mandated Social Studies credits required by NYS for graduation.

Elective: Yes

Psychology 2

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Global 10, with Grade 11 or 12 status

Description: This course is designed to give you a general idea of what psychology is, what we have learned about ourselves, and how psychology is applied to help improve people's lives. The units are organized so that you can get a better idea of how psychology works: from basic theories and principles, through research, understanding and explaining results, to the actual application of psychological techniques. Topics include: introduction and scientific foundations of psychology, social psychology and an introduction to treatments of psychological disorders.

Notes: This elective class does not replace the mandated Social Studies credits required by NYS for graduation.

Elective: Yes

Sociology 1

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Global 10, with Grade 11 or 12 status

Description: Sociology helps college and career-bound learners discover and explain social patterns and see how such patterns change over time and in different settings. By making vivid the social basis of everyday life, sociology also develops critical thinking by revealing the social structures and processes that shape diverse forms of human life. This elective course studies human society and social behavior. Positive human relationships are an essential part of a civilized society and how we interact with each other is important so we can find answers to questions and solve problems in our world. In Sociology 1, students will explore the foundations of Sociology, the socialization process of individuals and society, and delve into the issues of social inequality.

Notes: This elective course does not replace the mandated Social Studies credit required for graduation.

Elective: Yes

Sociology 2

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Global 10, with Grade 11 or 12 status

Description: Sociology helps college and career-bound learners discover and explain social patterns and see how such patterns change over time and in different settings. By making vivid the social basis of everyday life, sociology also develops critical thinking by revealing the social structures and processes that shape diverse forms of human life. This elective course studies human society and social behavior. Positive human relationships are an essential part of a civilized society and how we interact with each other is important so we can find answers to questions and solve problems in our world. In Sociology 2, students will explore the foundations of Sociology, the various social institutions, and delve into the issues surrounding social changes and collective behavior.

Elective: Yes

TECHNOLOGY PROGRAM PLANNING

Courses are organized below by concentration areas. The numbers guide the order courses are to be taken in. See course descriptions for more information.

*Indicates the course is supplemental to concentration area

**Required courses

Fundamentals of Technology should be taken prior to other construction or auto tech courses.

AP Courses at APHS offered through College Board

AP Biology, AP Calculus (BC), AP English Language and Composition (Gr 12), AP English Literature and Composition (Gr 11), AP Physics 1, AP Statistics, AP Studio Art 1, AP Studio Art 2, AP United States Government and Politics, AP United States History.

Career Technical Education (CTE)

Successful completion of a sequence of courses listed below for Automotive or Construction Technology will qualify students to receive a Certified Technical Endorsement (CTE) on their high school diploma.

Construction Technology

- 1 — Fundamentals of Construction or IED/DDP
- 2 — Construction Tech I (1 credit) (must be grade 10)
- 3 — Construction Tech 2 (2 credits)
- 4 — Construction Practicum (2 credits)

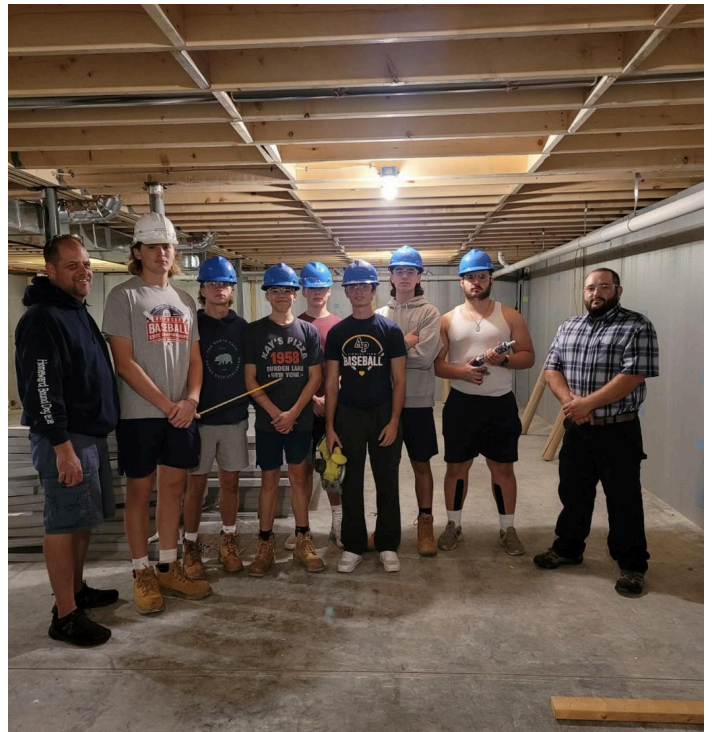
Auto Mechanics Technology

- 1 — Energy & Power (1 credit) (must be grade 10)
- 2 — Auto Tech I (2 credits)
- 3 — Auto Tech II (2 credits)

Project Lead the Way

Engineering Sequence (PLTW) Must take 5 to complete sequence

- 1 — **Introduction to Engineering Design (1 credit)
- 2 — **Digital Electronics (1 credit) (grades 10-12)
- 3/4 — Principles of Engineering (1 credit)
- 3/4 — Civil Engineering and Architecture (1 credit)



3/4 — Computer Integrated Manufacturing (1 credit)

3/4 — Computer Science Principles (1 credit)

5 — **Engineering Design and Development (1 credit)

Students will take five of the Project Lead the Way courses to receive a certificate of completion for the sequence. If students complete six or seven of the 1 credit PLTW courses, they will receive an exemplary certificate demonstrating their completion of the additional courses. Students may choose to take Technology courses as electives or as part of a sequence for an Advanced Regents Diploma.

Design and Drawing for Production

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Design and Drawing for Production is a blend of art, technical drawing, and production skills into one course. The course uses sketching, modeling, scaling, orthographic projection, pictorial drawing and many other skills to solve problems seen by designers and technical illustrators.

Notes: Note: Students may use this course for the art/music requirement.

Elective: Yes

Intro to Robotics and Computer Science

Length: 0.50 yr.

Credits: 0.50 cr

Description: This is a half year course aimed at freshmen interested in Robotics, Computer Science, and/ or Engineering. Throughout the course we will spend time exploring some of the following topics and languages: [Vex Robotics](#), [Vex Code and Vex VR Programming](#), [Scratch Programming](#), [Python Programming](#), [App Inventor](#), [Arduino and Arduino Programming](#). The goal of this course is to give students their first introduction to many of the topics that we cover in more depth throughout the Technology Department at APHS.

Elective: Yes

Fundamentals of Technology

Length: 0.50 yr.

Credits: 0.50 cr.

Description: This hands-on course is an introduction to problem solving through technology. The course is targeted towards freshmen but is open to students in grades 9-12 . This course will offer students the opportunity to learn: Technical drawing with 3-D construction – Students learn how to draw to scale with measurements and drawing tools with the end result being an ability to draw it and build it in a 3-D model. Cardboard chair challenge – Students construct a chair to compete in a head to head challenge of extreme weight carrying capacity. Thermal shelter – Students will construct a shelter to hold heat over a certain amount of time. Fix it project – Students bring in a broken item from home and attempt to diagnose how it became broken. Discussions about our “throwaway society” will be discussed. Rockets – Students will learn how to measure distance and trajectory by building a rocket. Lessons in aviation will revolve around thrust vs drag, wind resistance, aerodynamics, weight proportioning, and distribution. Catapults – Students will design and create a working catapult and compete for the most destructive design title.

Elective: Yes

[Energy & Power/Electricity](#)

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Prerequisite: Grades 10, 11 or 12.

Description: This course is open to any student grade 10–12 and was developed with the high school student in mind. It follows a project based learning approach to educate students for our changing workforce. This fun hands–on course will be a valuable resource for anyone interested in knowing more about alternative energy, electronics, and small engines. It can also be a gateway to students preparing for a hands-on career as an Automotive Technician, because it also serves as a prerequisite to an automotive sequence. Some of the projects include:

- **Alternative Energy Sales Pitch.** This research based presentation is designed to be light-hearted and fun. The presentations facilitate many interesting class discussions on fascinating new alternative energy concepts.
- **Solar Cooker Challenge.** Students learn about solar heating. Students design and build solar cookers in small groups to see who can cook a food item the fastest and hottest!
- **House Wiring.** Students follow circuit diagrams to build a series of lighting and switching arrangements used commonly in the household. Wire repairs. Students learn ways to identify and attach commonly used types of wire.
- **Small Engines.** Students learn important hands-on skills, such as: proper tool selection, measuring torque on fasteners, measuring engine specifications, trouble-shooting and preventive maintenance. This is accomplished by completely dismantling and reassembling a single- cylinder engine.
- **Tractor Race.** This culminating project joins together skills learned in basic electronics and small engines. Students work as a team to rebuild a discarded riding lawn mower to race on the last day of school. THIS EVENT DEPENDS GREATLY ON PROFESSIONAL CLASSROOM BEHAVIOR. View a video of a class project here:

<https://www.youtube.com/watch?v=ZvumwDVCmrc>

Elective: Yes

[Automotive Technology 1](#)

Length: 1.00 yr.

Credits: 2.00 cr.

Prerequisites: If students wish to continue in Auto Mechanics, they need to earn an average of 85% or above in Energy & Power or obtain the approval of the instructor.

Description: Description: The Automotive Technology I course is focused on preparing students to gain an understanding of automotive systems and repair shop procedures. Students learn about safety and the proper use of tools and equipment. They will also learn how to diagnose and repair using the latest version of Mitchell on demand. This on-line shop tool gives students the ability to create documents equivalent to ones used in many quality repair shops for customer correspondence. Students will study automotive suspension and steering. They will also learn about automotive brakes. Finally students will study electrical, electronic, and computer control systems found on today's automobiles and light trucks to obtain the knowledge and hands on skills needed to successfully diagnose, service, and repair all types of automotive problems. Students can also earn 1 integrated credit of math which may be used towards graduation. Automotive Technology I will lead into Automotive Technology II which provides students with the knowledge and experience needed to pursue careers in the automotive repair fields. The two courses together will prepare students for Certification Tests in Auto Tech 2. These tests are used by the auto repair industry in order for people to work in this increasingly complex field.

Elective: Yes



Automotive Technology 2-College

Length: 1.00 yr.

Credits: 2.00 cr.

Prerequisites: Automotive Technology I. Seats are limited and will be filled using an application process which can include student grade and teacher recommendation.

College Credit: Students are eligible for college credit from the University of Northwestern Ohio and/or HVCC for completing the Automotive sequence and passing the Precision exam. Students who choose to take this course for college credit a payment will be required to be made to the appropriate university.

Fees: A lab fee may be charged for this class.

Description: The Automotive Technology II course is focused on preparing students to transition out of high school into college or the workforce. This class includes integrated English 12 to satisfy their English credit requirement. Students will assemble an exit portfolio with all of their individual hands-on experiences. Building from the hours of experience they accumulate in Auto Tech I students will acquire quotes using the latest version of Mitchell on demand. This on-line shop tool gives students the ability to create documents equivalent to ones used in many quality repair shops for customer correspondence and record keeping. Integrated English complements the automotive sequence by giving students the skills required for the modern workforce or a successful educational experience in college. Students will learn how to write a resume and cover letter. Students will learn interview skills during our mock interview segment. To further mechanical understanding students will study automotive drivability issues as they relate to fuel delivery. They will also learn about automotive emission control systems. Finally students will further their study of electronic, and computer control systems found on modern automobiles and light trucks to obtain the knowledge and hands on skills needed to successfully diagnose, service, and repair several types of automotive problems. Automotive Technology II will provide students with the opportunity and experience needed to pursue a career in the automotive repair field. The two courses together help to prepare students for Certification Tests. Our tests are nationally recognized by the auto repair industry.

Elective: Yes

Fundamentals of Construction

Length: 0.50 yr.

Credits: 0.50 cr.

Description: Introductory graphic communication course for the Construction Technology sequence which can easily be taken in conjunction with Fundamentals of Technology (another half-year course). The course is designed to help students think of problems visually and in multiple dimensions. Students learn the basics of graphic communication including 2D and 3D hand sketching. Students will also learn the basics of reading and creating architectural blueprints. Students will learn the basics of using a computer which will lead into Computer Aided Design on a fundamental level.

Notes: Typically a Freshman course acting as a Prerequisite for Construction Technology I.

Elective: Yes

Construction Technology 1

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Fundamentals of Construction

Description:

Construction Technology I is a course geared to prepare students with the knowledge for future courses and the construction field. Students will become familiar with the various tools and materials that they will use. Each tool and/or topic will be explored and knowledge will be put to the test on a related project. Topics of study include:

- Drafting & Layout
- Wood Materials & Surfacing on the Planer & Jointer
- Drilling & Boring
- Saws: Band Saw, Table Saw, Miter Saw, Scroll Saw
- Sanding & Wood Finishing
- Joinery, Routing, and Engraving
- CNC Routing & Turning

Upon successful completion of the course, students will have the opportunity to apply for admission into Construction Technology II.

Elective: Yes

Construction Technology 2

Length: 1.00 yr.

Credits: 2.00 cr.

Description: Construction Tech 2 is the third in a four course sequence focused on residential construction. The course introduces students to advanced theory and practices in the built world. Students will learn advanced concepts in site work, foundations, floor framing, wall framing, roof framing, asphalt roofing systems, stair construction, door and window installation, weatherproofing, and interior finish. Students can also earn 1 integrated credit of math which may be used towards graduation. Students who successfully complete Construction Tech 2 may apply for admission into Construction Practicum, culminating the Construction Technology CTE sequence.

Elective: Yes

Construction Practicum- (College)

Length: 1.00 yr.

Credits: 2.00 cr.

Prerequisites: Construction Tech 2.

College Credit: Students are eligible for college credit through Hudson Valley Community College.

Fees: Students who choose to take this course for college credit, a payment will be required to be made to HVCC.

Description: This is the final course in the Construction Technology sequence leading to a potential CTE endorsement. This course is meant to provide significant off-site field experience. Examples of this may be: Habitat for Humanity, or other residential jobs. This class will include specialized English 12. Which will also satisfy the English Credit Requirement. Students may be asked to obtain basic tools and safety equipment such as steel-toed boots, and a basic tool belt.

Notes: Two blocks

Seats are limited for this course and GPA, work ethic, attendance, departmental recommendation may be factors.

Elective: Yes

PLTW: Civil Engineering and Architecture

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Introduction to Engineering Design is HIGHLY recommended and students should be grade level 10 or higher. Grade 9 students can take CEA concurrently with IED or if IED does not fit in their schedule.

Description: Have you ever thought about designing a HOUSE and wondered how to go about it? Then this is the course for you. The major focus of the course is a long-term project that involves the development of a local property site. As you learn about various aspects of civil engineering and architecture, you will apply what you learn to the design and development of this property. The course is built around a culminating project where you will design, document, and model your DREAM house. The course covers the following: The Roles of Civil Engineers and Architects, Site Planning, House Design, Environmental House Design, Surveying, Project Documentation and Presentation

Elective: Yes

PLTW: Computer Integrated Manufacturing

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Introduction to Engineering Design and successful completion of Algebra. Students must be in grade 10 -12.

Description: Computer Integrated Manufacturing builds on the knowledge gained in Introduction to Engineering Design with the continued use of Industry standard three-dimensional software. Projects include 3D printing student created solutions to a problem and writing CNC code for original programs. Students also learn how to program a robotic arm and utilizing AutoDesk's Inventor program to create a CO2 dragster that is 3D printed and raced.

The core of the course focuses on Industry level CNC milling and robotics skills. Students explore the history and real-world applications of both areas. The use of Industry level CNC milling programs and matching concepts and projects present students with a unique experience. Students learn the numerous software packages that support the design and CNC milling of materials. Projects include skill builders along with the design and creation of key chains utilizing the program Mastercam bringing the students CNC experience to a whole new level.

Robotics is another focus of the course. Student learn to program and operate a robotic arm in both simulation mode and in the lab setting. The robotic arm teaches students how to program movements in both simulation and on the real robot similar to a factor setting.



The 3D printer adds another layer of the manufacturing experience for students. Now, student can utilize a solid modeling program to create a solution and make it a reality right in the classroom. Students also use AutoDesk's Inventor to design and the 3D print a CO2 Dragster. The dragsters are then raced highlighting the many design aspects that affect performance outcomes.

Field trips are planned to local companies and colleges in the area that highlight engineering and manufacturing.

Elective: Yes

PLTW: Computer Science Principles

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Introduction to Engineering Design is HIGHLY recommended and students should be grade level 10 or higher. Grade 9 students can take CEA concurrently with IED or if IED does not fit in their schedule.

Description: Computer Science Principles (CSP) is a PLTW course where students work in teams to develop computational thinking and solve problems. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The course also aims to build students' awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. Students with greater motivation, ability, or background knowledge will be challenged to work further. The course is built around learning four major programming tools languages: MIT Scratch, MIT App Inventor, Python, HTML

Elective: Yes

PLTW: Digital Electronics -College

Length: 1.00 yr.

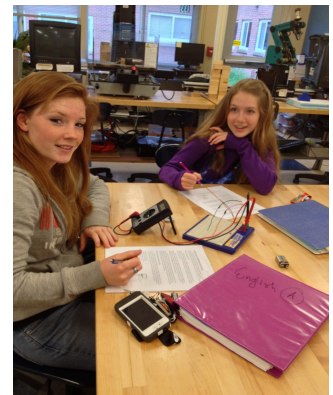
Credits: 1.00 cr.

Prerequisites: Algebra. Required grade level 10th or higher

College Credit: College credit is available for Digital Electronics through Hudson Valley Community College. Students who choose to take this course for college credit, a payment will be required to be made directly to university.

Description: Digital Electronics is a course of study in applied digital logic. The course is patterned after the first semester course in Digital Electronics taught at two and four year colleges. Students may take this for HVCC credit. It is a required course for the PLTW sequence. Students will study the application of electronic logic circuits and devices and apply Boolean logic to the solution of problems. Such circuits are found in watches, calculators, video games, computers and thousands of other devices. Using computer simulation software, students will test and analyze simple and complex digital circuitry. Students will design circuits, and create them using breadboards and components. Digital electronics is an important course of study for a student exploring a career in engineering/engineering technology. Digital Electronics is also an excellent course of study for students interested in computer programming and game design. Digital Electronics provides a base knowledge for students interested in many different paths that all revolve around the same center – our Digital world.

Elective: Yes



PLTW: Engineering Design and Development

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Introduction to Engineering Design and Digital Electronics plus two of the following courses: Principles of Engineering, Computer Integrated Manufacturing, Computer Science Principles or Civil Engineering and Architecture. Students must also have successfully completed Algebra. Students must be in grade 12.

Description: Engineering Design and Development is the final course in the Project Lead the Way pre-engineering sequence. The focus is to further develop the skills and knowledge acquired in the previous PLTW courses. These skills are needed in both two and four-year colleges. Students continue to build problem solving and application skills through various activities. These activities include studying, designing, and building roller coasters. Additionally, the history of technological systems is explored to provide a higher level of understanding and appreciation of the evolution of our world. A large portion of the year is dedicated to students designing and constructing an original solution to an engineering problem. Students will need to maintain a journal and portfolio to document the process of their work. Students will present their project to a review panel at the end of the year. Students will find Engineering Design and Development an excellent opportunity to prepare them for the challenges of college. View photos/video here: <https://tinyurl.com/udukn3v>

Elective: Yes

PLTW: Introduction to Engineering Design-College

Length: 1.00 yr.

Credits: 1.00 cr.

College Credit: College credit for Computer Aided Drafting through Hudson Valley Community College is available. Tuition costs are payable to HVCC.

Description: Introduction to Engineering Design is the first course of the Project Lead the Way sequence. Students must have developed mathematics skills, high quality study skills and creative thought processes. The course begins with introducing students to problem solving and design skills necessary in engineering and technology fields. These skills will be expanded throughout the year and built upon in further PLTW courses. Industry level software is used to instruct students in computer aided drafting. Students will learn how to create both two dimensional objects and three dimensional models using the computer programs, AutoCAD and Autodesk's Inventor program. Self motivation and creative thought processes are required as students engage in this high level and fast-paced course.

Notes: Students may use this course for the art/music requirement and as the prerequisite for Construction 1 in lieu of Fundamentals of Construction. Students should NEVER take Fundamentals of Construction congruent with this course.

Elective: Yes

PLTW: Principles of Engineering

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Principles of Engineering is a broad-based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved in post-secondary education programs and engineering careers. The goal of this course is to experience through theory and hands-on problem solving activities what engineering is all about and to answer the question, Is a career in engineering or engineering technology for me? The major topics covered in this class are: Bridge Design, Simple Machines, Robotics, Mechanisms, Computer Programming, Strength of Materials, Statics, Data Manipulation

Elective: Yes

PLTW: Engineering Applications

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Successful completion of Introduction to Engineering Design. Required grade level 10th or higher.

Description: Engineering Applications supplements the Project Lead the Way Technology sequence. It is a half year course that will further add to the engineering experience and knowledge base of high school students. The curriculum will allow students to explore a variety of current and emerging technologies beyond the other PLTW courses. It is a fast paced course that will encourage students to investigate areas of engineering that are a part of everyday life potentially leading them into interesting and challenging careers.

Elective: Yes

Exploring Robotics

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Submitted application and acceptance into Robotics Club. Students need to be accepted into the robotics club and sign a contract between student, parent, and teacher stating their commitment to arrive at school by 7:00 AM to be on time for this class.

Fees: There will be costs associated with the class and the club. The cost of registration for events and some materials, and transportation will fall to the students.

Description: Exploring Robotics is a half year course that will meet every day from 7:00 -7:35 am during the fall semester. Registration to this course is contingent on participation in the APHS robotics club which meets a minimum of once per week. Vex Robotics is the platform featured in this class. Students will learn and work in the areas of structure, logic, controls, sensors, motion, power, and coding as they relate to robotics. We compete in multiple weekend competitions where we travel to compete against other schools from across the region and the state. Prompt attendance in class and at these competitions is a large part of your quarterly grade.

Notes: Semester 1 only.

Elective: Yes



Get To Know Your Car

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Must have a car and valid license.

Description: This course is open to any student who wants to know more about their vehicle. This hands – on course will be a valuable resource for anyone who wishes to save thousands of dollars over the course of their life owning vehicles. Some of the topics include:

- Automotive tool selection. Students learn what tools to buy and how to use them properly.
- How to determine if a part needs to be replaced.
- How to use repair information. Students use common resources to gain necessary specifications and step by step procedures.
- Preventive maintenance. Students learn about fuel, fluids, and techniques to change and check them all.
- How to change a wheel.
- How to change brake pads and rotors

Elective: Yes

Intro to Video Game Development

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Currently taking Geometry or successful completion of Geometry

Description: In this multidisciplinary course, students will learn game theory, build original games, and explore careers in the video game industry. Open to all talents and experience levels, students will engage in collaborative, hands-on projects covering art/animation and graphic design, narrative writing, computer coding/programming, and more! Industry mentors will visit to share their experience, academic background, and career paths. Whether creatively or analytically-minded, students will master skills applicable to all careers, engage in meaningful learning experiences of student interest and enjoyment, and have fun doing it!

The course will consist of two large projects that students design and develop in groups: creating an original board game and creating an original video game. Our lessons employ Construct 3 (<https://www.construct.net/en>) as a video game engine. This program is web-based, very user-friendly, and Chromebook accessible. You may also utilize Piskel (<https://www.piskelapp.com/>) for game art/animation creation. This is also web-based, very user-friendly, and Chromebook accessible. The instructional materials we have designed for each are easy-to-follow and very informative. Even our colorblind teacher had success with this program!

Elective: Yes

Advanced Video Game Development

Length: 1.00 yr

Credits: 1.00 cr.

Prerequisites: Introduction to Video Game Development and Teacher Approval

Description: The goal of this brand new course is to build off of the interest developed in Introduction to Video Game Development and cultivate skills in a particular area of Video Game Development that interests you most. Then as a complete class work collaboratively to develop a complete game. This course will be supported with speakers from across the budding video game community in the Capital District. This will be an opportunity to experience at a high level the many different fields that exist in the Video Game development industry while working to excel in one.

Elective: Yes



THEATRE ARTS

Below are the current offerings from the Theatre Arts department:

Introduction to Theatre Arts

Length: 1.00 yr.

Credits: 1.00 cr.

Description: Introduction to Theatre Arts is a course designed for both the student with a casual interest in theatre as a discipline and for the student hoping to pursue theatre as a possible career path. The course is open to students of all grades and ability levels and is designed to provide a thorough overview of theatre arts from the basics of acting and understanding plays to technical aspects of production including set design, sound, and lighting. Units focus on the first steps in acting including mime and vocal control, plays in both literary and performance aspects, crafts necessary for production including set, lighting, sound, and costume design, and an overview of theatre history and careers in theatre. Students are trained in presentation, self-assessment, and writing skills that will provide global benefits in their high school classes.

Elective: Yes

Acting: Performance and Production

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Introduction to Theatre Arts. Open to students in grades 10-12 (all academic levels).

Description: Building on skills students originated in Introduction to Theatre Arts, the class provides training in multiple performance practices and techniques. After a quick review of basic skills students take an in-depth look at building characters and various acting techniques. Students develop audition strategies as well as mastering challenging dialogues and monologues. Central to the course is real world performance; these opportunities also allow students to appreciate the structure of a theatre company and practice performance allied with production skills such as directing. Students of all ability levels who have completed Introduction to Theatre Arts and have a strong interest in the discipline may take the class.

Elective: Yes



WORLD LANGUAGES PROGRAM PLANNING

Requirements in World Languages:

Students need to earn a minimum of one credit of a language other than English. Students who pass a world language in 7th and 8th grade, as well as, the checkpoint A exam will have met their minimum requirement. Students entering grade 9, who have successfully completed two years of study at the Middle School level and passed the checkpoint A exam in a Language have met this requirement, and have earned 1 credit for Spanish I, or French I.

Three credits of WL plus the Comprehensive Checkpoint B Examination in a Language is one option for an Advanced Regents Diploma.

Below are the current offerings from the World Languages department:

French 2

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of two-and-one-half years of French 1 study AND passing the Comprehensive Checkpoint A examination at the Middle School.

Description: French 2 is designed for the student who has successfully completed the two-and-one-half year proficiency courses in French at the Middle School level AND passed the Checkpoint A Examination. The goal is the development of communicative speaking, reading and writing. French culture is taught by dialogues, reading, and video. A school final examination will be administered in June.

Elective: No

French 3

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of French 2

Description: Communicative proficiency in listening, speaking, reading and writing is developed at a more advanced level on a wider scope of topics. Cultural awareness is developed through dialogues, readings and videotapes. The Comprehensive Checkpoint B Examination in French will be administered at the conclusion of this course in June.

Elective: Yes

French 4- College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: A final average of 80% or higher in French 3; a grade of 80% or higher on the Comprehensive examination or teacher permission.

College Credit: As an option, students can earn college credit. In line with SUNY standards, and a tuition payment, students will receive 4 credits on a SUNY Albany transcript.

Description: Level 4 is an advanced course that offers instruction in advanced conversation, grammar and composition. Students will read a variety of literary works, discuss videos and films and prepare frequent oral and written reports. The course is conducted, for the most part, in French. The students who successfully complete the course receive one high school credit. As an option, students can earn college credit. In line with SUNY standards, and a tuition payment, students will receive 3 credits on a Hudson Valley Community College transcript.

Elective: Yes

French 5-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of French 4 with a minimum average of 80% or teacher permission.

College Credit: As an option, students can earn college credit. In line with SUNY standards, and a tuition payment, students will receive 4 credits on a SUNY Albany transcript.

Description: Level 5 is an advanced course that offers instruction in advanced conversation, grammar and composition. Students will read a variety of literary works, discuss videos and films and prepare frequent oral and written reports. The course is conducted, for the most part, in French. The students who successfully complete the course receive one high school credit. As an option, students can earn college credit. In line with SUNY standards, and a tuition payment, students will receive 3 credits on a Hudson Valley Community College transcript.

Elective: Yes

Spanish 1

Length: 1.00 yr.

Credits: 1.00 cr.



Description: This is an entry level course designed for students who have either NEVER taken a world language, or who have been unsuccessful in Level I Spanish courses either at Algonquin Middle School or another school. Successful completion of this course will meet the NYS graduation requirement of at least 1 WL credit.

Elective: No

Spanish 2

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of two-and-one-half years of Spanish I study AND passing the Comprehensive Checkpoint A examination at the Middle School.

Description: Spanish 2 is designed for the student who has successfully completed the two-and-one-half year proficiency courses in Spanish at the Middle School level AND passed the Checkpoint A Examination. The goal of the course is the development of communicative competency using current idiomatic Spanish. There is continued practice in listening, speaking, reading and writing. Spanish culture is taught by dialogues, reading, and video. A school final examination will be administered in June.

Elective: No

Spanish 3

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Spanish 2

Description: Communicative proficiency in listening, speaking, reading and writing is developed at a more advanced level on a wider scope of topics. Cultural awareness is developed by dialogues, readings, videotapes and movies.

Notes: The Comprehensive Checkpoint B Examination in Spanish will be administered at the conclusion of this course in June.

Elective: Yes

Spanish 4-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: A final average of 80% or higher in Spanish 3; a grade of 80% or higher on the Comprehensive examination or teacher permission.

College Credit: As an option, students can earn college credit. In line with SUNY standards and a tuition payment, students will receive 3 credits on a SUNY Oswego transcript.

Description: Level 4 is an advanced course that offers instruction in advanced conversation, grammar and composition. Students will read a variety of literary works, discuss videos and films and prepare frequent oral and written reports. The course is conducted, for the most part, in Spanish. The students who successfully complete the course receive one high school credit.

Elective: Yes

Spanish 5-College

Length: 1.00 yr.

Credits: 1.00 cr.

Prerequisites: Successful completion of Spanish 4 with a minimum average of 80% or teacher permission.

College Credit: As an option, students can earn college credit. In line with SUNY standards and a tuition payment, students will receive 3 credits on a SUNY Oswego transcript.

Description: Level 5 is an advanced course that offers instruction in advanced conversation, grammar and composition. Students will read a variety of literary works, discuss videos and films and prepare frequent oral and written reports. The course is conducted, for the most part, in Spanish. The students who successfully complete the course receive one high school credit.

Elective: Yes

Global Cinema Studies

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: Demonstrated successful completion of previously enrolled ELA and Social Study Classes.

Description: Global Cinema Studies will expose students to other cultures and languages through film. Students will compare foreign cultures to each other and to the American way of life. In this class students will make oral presentations about the historical context of the foreign countries, write analytical essays about the foreign countries, freely and openly discuss class themes, and carefully discern the messages and potential biases of the filmmakers. Even before seeing the movies, students will be asked to challenge their preconceived notions of cultures presented in these films.

Notes: Writing and oral communication are major components of this class. Students must be willing to watch movies with subtitles. Some of the themes addressed will be "coming of age," "the parent-child relationship," "lives of minorities," "police brutality," "The Cold War," "Democracy vs. Communism," "gender stereotypes," "the recent economic crisis," "terrorism," and "colonialism."

Elective: Yes

Latin American History, Culture and Politics

Length: 0.50 yr.

Credits: 0.50 cr.

Prerequisites: None

Description: This course will explore Latin America, the Caribbean and the U.S. Film, art, movies, literature, and academic articles are just some of the materials that will be studied and analyzed. We will focus on the period before the conquest and the 20th-21st century, and examine history, politics and culture. Topics to be covered may include but are not limited to: race, culture, ethnicity, nationality, religion, gender, immigration, etc...

Elective: Yes