



BMHS Course Catalog & Descriptions

Updated for the 2026-2027 School Year

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The Course Offerings in this catalog are aligned with the Mission of the Berlin Central School District, which is to maximize the diverse talents and aspirations of its students. Our students will be prepared to assume responsibility for their own success in the workforce, college, the community and life.

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Middle School Schedule Requirements - Grades 6-8

While MS Coursework is largely required by NYS to prepare students for HS coursework, there are some choices of electives, as well as acceleration options. The student may also need additional Resource Room, Reading or MTSS periods in their schedule, depending on their needs.

Grade 6	Grade 7	Grade 8
ELA 6/ELA Lab - 1.5 units	ELA 7/ELA Lab - 1.5 unit	ELA 8 - 1 unit
MATH 6/Math Lab - 1.5 units	MATH 7/Math Lab - 1.5 unit (Or Compression Math 7/8)	MATH 8 - 1 unit (Or HS Algebra I Acceleration)
SCIENCE 6 - 1 unit	SCIENCE 7 - 1 unit (Or Compression Science 7/8)	SCIENCE 8 - 1 unit (Or HS Biology Acceleration)
SOCIAL STUDIES 6 - 1 unit	SOCIAL STUDIES 7 - 1 unit	SOCIAL STUDIES 8 - 1 unit
HEALTH - .25 unit		SPANISH 1 - 1 unit
PHYSICAL EDUCATION (PE) - 1 unit	PHYSICAL EDUCATION (PE) - 1 unit	HEALTH - .25 unit
ART 6 - .25 unit	ART 7 - .25 unit	PHYSICAL EDUCATION (PE) - 1 unit
GENERAL MUSIC 6 - .25	GENERAL MUSIC 7 - .25 (Or MS Band or MS Chorus)	ART 8 - .25 unit
FACS 6 - .5 unit	FACS 7 - .5 unit	GENERAL MUSIC 8 - .25 (Or Band or Chorus)
MIDDLE SCHOOL ESSENTIALS - .25 unit		TECH - 1 unit
<u>Electives:</u> 6th Grade Chorus or 6th Grade Band	<u>Electives:</u> 7th/8th Grade Chorus or 7th/8th Grade Band	<u>Electives:</u> 7th/8th Grade Chorus or 7th/8th Grade Band

Please keep in mind that aside from Spanish 1, and unless a student is taking a High School math or science credit course for acceleration, these MS courses are not counted towards the 22 credits students need to graduate High School. All other credits start being counted in 9th grade.

New York State (NYS) High School Graduation Requirements - Grades 9-12

Regents Diploma		Advanced Regents Diploma*	
Required Course	Required Credits	Required Course	Required Credits
ELA	4	ELA	4
Social Studies	4	Social Studies	4
Math	3	Math*	3+
Science	3	Science*	3+
Health	.5	Health	.5
PE	2	PE	2
World Language	1	World Language* (3 Credits) OR Art <u>or</u> Music Credit* (5 Credits) OR CTE/Tech* (5 Credits)	
Art, Music, <u>or</u> DDP	1		
CTE/Tech	0		
Other Electives	3.5	Other Electives	<i>Credits Depends on Choices Above</i>
Total Minimum Credits to Graduate:	22 Credits	Total Minimum Credits to Graduate:	22 Credits

*To earn a Regents Diploma with Advanced Designation, **students must pass 2 additional math assessments and 1 additional science assessment and complete one of the three following sequence options:**

1. 2 additional credits in World Languages (for a total of 3 credits) and the locally developed Checkpoint B World Languages Exam (*Recommended for students whose post-graduate goals include attending a 4-year college or university*).
- OR**
2. 5-unit sequence in The Arts (Visual Art or Music)
- OR**
3. 5-unit sequence in Career and Technical Education (CTE).

MULTIPLE PATHWAYS TO GRADUATION

Multiple pathways recognize the importance of engaging students in rigorous and relevant academic programs. The regulations approved in 2015 and 2016 recognize students' interests in the Arts, World Language, Career and Technical Education (CTE), Career Development and Occupational Studies (CDOS), Humanities, and Science, Technology, Engineering and Mathematics (STEM) by allowing an approved pathway to meet the students' graduation requirements.

NYS Public School Students must pass 5 Regents Exams to graduate. **Under the 4+1 Pathway Assessment option**, NYS public school students must take and pass 4 Regents Exams or Department Approved Alternative Assessments. The four Regents exam subject areas include: English language arts, mathematics, science, and social studies. The "5th Regents" would be successful completion of a Pathway Assessment option below:

NYS MULTIPLE PATHWAY CHOICE REQUIREMENTS

<i>TYPE</i>	<i>Student must complete:</i>
Career Development and Occupational Studies (CDOS)	<ul style="list-style-type: none"> The CDOS Commencement Credential Requirements (Option 1 or Option 2).
VISUAL ART/ MUSIC/ IAAP	<ul style="list-style-type: none"> An additional Arts or Music course (or sequence) culminating in a Department-approved pathway assessment; and Earn an acceptable score on the culminating NYSED-Approved Pathway Assessment in the Arts (AP: 2D Design Portfolio Exam <u>or</u> AP Music Theory) <u>OR</u> the IAAP Assessment Process for either Art or Music
CTE (Off- Campus Questar Programs)	<ul style="list-style-type: none"> A NYSED-Approved CTE Program; and the culminating 3-part technical assessment.
STEM (Math or Science)	<ul style="list-style-type: none"> An additional science or mathematics course culminating in a Regents or NYSED-Approved Regents Examination Alternative; and Earn an acceptable score on the culminating Regents Exam or NYSED-Approved Regents Examination Alternative.
HUMANITIES (ELA or Social Studies)	<ul style="list-style-type: none"> An additional social studies or English language arts course culminating in a Regents Exam or NYSED-Approved Regents Examination Alternative; and Earn an acceptable score on the culminating Regents Exam or NYSED-Approved Regents Examination Alternative.
CIVICS READINESS	<ul style="list-style-type: none"> The student must successfully complete the Seal of Civic Readiness requirements.
WORLD LANGUAGE	<ul style="list-style-type: none"> Adequate World Languages coursework (based on student proficiency); and the culminating NYSED-Approved Pathway Assessment in World Languages. (Spanish Checkpoint B Examination).

Earning Credits

Once students transition into High School, they begin to accumulate credits. Upon completing and demonstrating comprehension of the course content (overall passing grade of 65 or higher) students will earn credit for their classes. NYS Department of Education requires students to meet a certain number of credits in specific content areas to graduate from high school. Students will progress to the next grade depending on the number of credits they accrued in their previous years.

Minimum Credits for Grade Level Promotion*

Grade 9 = Less than 5 ½ credits

Grade 10 = 5 ½ credits

Grade 11 = 11 credits

Grade 12 = 16 ½ credits

GRADUATION = 22 credits

SAMPLE 4- YEAR PLAN - Regents Diploma Track (5 Passed Regents)							
<i>*School counselors ensure that students stay on track for graduation by scheduling them for a <u>minimum of 5.5</u> credits each year.</i>							
Grade 9		Grade 10		Grade 11		Grade 12	
(Spanish 1 from MS Complete)	(1)						
ELA 9	1	ELA 10	1	ELA 11 (+Regents)	1	ELA 12 Choices	1 (or two .5)
Global I	1	Global II (+Regents)	1	U.S. History (+Regents)	1	Eco & PIG	1
Algebra I (+Regents)	1	Math Elective	1	Math Elective	1		
Biology (Life Sci) (+Regents)	1	Earth & Space Science (Phys Sci)	1	Science Elective	1		
Physical Education (PE)	.5	Physical Education (PE)	.5	Physical Education (PE)	.5	Physical Education (PE)	.5
		Health	.5				
Other Elective Choice (including the (1 credit) Art or Music Credit)	1	Other Elective Choice	1	Other Elective Choice	1	Other Elective Choices	3
(Minimum) TOTAL Credits	6.5	(Minimum) TOTAL Credits	6	(Minimum) TOTAL Credits	5.5	(Minimum) TOTAL Credits	5.5
(Take 1.5 more electives for a Maximum Total Credits of)	8	(Take 2 more electives for a Max Total Credits of)	8	(Take 2.5 more electives for a Max Total Credits of)	8	(Take 2.5 more electives for a Max Total Credits of)	8

**SAMPLE 4- YEAR PLAN -
Traditional Advanced Designation Regents Diploma Track
(8+ Passed Regents)**

**Sample is made with a student in mind who is planning on attending a
4-year college or university program after graduation.*

Grade 9		Grade 10		Grade 11		Grade 12	
(Spanish 1 from MS Complete) + Spanish 2	(1) (1)	Spanish 3 (Checkpoint B Exam)	1	HV Spanish 4/5	1		
ELA 9	1	ELA 10	1	ELA 11 (+Regents)	1	ELA 12 Choices	1 (or two .5)
Global I	1	Global II (+Regents)	1	U.S. History (+Regents)	1	Eco & PIG	1
Algebra (+Regents)	1	Geometry (+Regents)	1	Algebra 2 (+Regents)	1	Pre-Calc	1
Biology (+Regents)	1	Earth & Space Science (+Regents)	1	Chemistry (+Regents)	1	Physics (+Regents)	1
Physical Education (PE)	.5	PE	.5	PE	.5	PE	.5
		Health	.5				
Other Elective Choice (including the (1 credit) Art or Music Credit at some point in the 4 years)	2.5	Other Elective Choices	2	Other Elective Choice	2.5	Other Elective Choices	3.5
MAX TOTAL	8	MAX TOTAL	8	MAX TOTAL	8	MAX TOTAL	8

*It is highly recommended for students going to **4-year colleges and universities** post-graduation to continue taking all **4 credits of a World Language**, as well as **4 years of Math and Science**, which can help with college acceptance. *If a student is interested in attending a 4-year college for the Arts, Music or Engineering, taking Art/Music or Tech courses may be more beneficial.* **Colleges want to see that you've challenged yourself to take many courses, not just the minimum.**

College-Credit Courses

Berlin HS offers several courses for college credit at the High School Level (i.e. **HVCC College in the High School Program, Siena College, SUNY ESF, Advanced Placement (AP) Courses**). It is *highly recommended* that students who have plans to attend college take these courses to save some of the financial burden after graduation. While there is a cost to take these, the cost is **significantly** reduced when taken in high school. There is financial support available depending on students' criteria. **See each Department's Course Pages in this Catalog to View Specific Course Offerings.**

Questar III – Career & Technical Education (CTE) Opportunities:

11th and 12th grade students are eligible to apply to one of several Questar III's Career and Technical Education (CTE) programs. These hands-on programs provide students with the academic and technical skills necessary to succeed in future careers and to become lifelong learners.

During their 10th grade year, prospective students will have an opportunity to visit Robert H. Gibson Technical School in Troy. After the visit, school counselors will check in with interested students and provide them with their application materials. Upon acceptance students will earn credits through their program of study. Credits are counted toward diploma requirements at Berlin High School.

CTE courses are scheduled for one-half of the school day (2 ½ hours), Monday through Friday. Students will spend half of the day at Robert H. Gibson Technical School and half of the day at Berlin Middle High School.

All 8th-10th grade students should keep in mind that these programs are **highly competitive and selective**. You must show that you have good attendance and behavior, as well as passing all of your required classes in order to be considered for these programs. To be eligible to attend a Questar III Program, the student must have successfully completed the following **before** being accepted:

- English: 2 credits
- Social Studies: 2 credits
- Science: 2 credits
- Mathematics: 2 credits
- Art/Music: 1 credit
- Phys Ed: 1 credit

CTE Programs include:

- Automotive Technology I & II
- Construction I & II
- Cosmetology I & II
- Criminal Justice I & II
- Culinary Arts I & II
- Electrical Trades I & II
- Gaming & Multimedia I & II
- Heavy Equipment I & II
- HVAC I & II
- Welding and Fabrication I & II
- CNA-Nursing (senior year only).
- Career Studies: Auto Services I & II

For more information regarding Questar III/CTE and the programs offered please see your school counselor or visit their website: <https://www.questar.org/education/career-and-technical-education/>

New Visions: <https://www.questar.org/new-visions/>

New Visions programs are offered through Questar III to highly motivated, academically capable and mature high school seniors who are serious about learning more regarding careers in a specific field. Students will spend their entire day at the New Visions Program.

- **STEM** – Science, Technology, Engineering and Mathematics at RPI
- **Visual & Performing Arts** – Arts Center of the Capital Region, Troy
- **Medical** – Samaritan Hospital, Troy
- **Pathways in Education** – University at Albany, Albany
- **Science Research & World Health** – University at Albany's Health Sciences Campus, Rensselaer
- **Emergency Preparedness, Informatics, Cyber & Homeland Security** – University at Albany's ETEC Building

Course Selection Process

Berlin Middle High School's goal is for students to select courses with their post-graduation plans in mind and for parents/guardians to be informed and involved in the scheduling process. Students at the high school level have more choices in which courses they take. Throughout the scheduling process, we encourage parents and students to review the current year's Course Catalog to get an understanding of course descriptions and requirements.

In January and February, students in grades 8-11 will receive presentations from Guidance and other Departments regarding graduation requirements and options for High School coursework. Students will participate in classroom presentations and an assembly to determine which courses best fit their post-graduation goals - workforce, military, trade school, 2-year college, or 4-college.

All eighth grade students will meet individually with their school counselor to discuss their courses for ninth grade. During this meeting, students and their counselor will explore their 4-year high school plan as well as post-secondary goals and interests they have for themselves.

By Spring break, student's course requests will be shared home. We encourage parents to look over the course selections your child has requested to take next year, discuss these selections, and reach out to your child's school counselor with any questions or concerns. Students will have until May 15th to make changes to their course requests. After receiving their schedule, students are able to make changes until the end of the add/drop period at the start of the 2026-2027 school year.

Honors Criteria & 8th Grade Acceleration

The honors courses for Social Studies Grades 9-12 will provide students who demonstrate a desire to excel academically a more in-depth inquiry of various social studies themes, as well as increased expectations for rigor and responsibility.

Parents will receive letters notifying them that their child has been selected to participate in the honors program, based on criteria determining their eligibility. Berlin High School's Social Studies Department will meet with Middle School Social Studies teachers and school counselors to evaluate candidates for the Honors program.

Eighth grade students also have the opportunity for acceleration in Math (HS Algebra) and Science (HS Biology). The MSHS Math and Science departments work collaboratively to determine which students may be eligible for this acceleration depending on their performance in 6th and 7th grade Math and Science courses.

Academic Support

Academic Intervention Services/MTSS (Multi-Tiered Systems of Support)

AIS/MTSS courses are scheduled as an every other day class period for students in need, but are non-credit bearing courses. AIS/MTSS are additional instruction and/or support services that supplement the instruction provided in the general curriculum and assist students in meeting the State Learning Standards. Academic Intervention Services and MTSS are intended to assist students who are at risk of not achieving success in the State Learning Standards/State assessments in English Language Arts, Mathematics, Social Studies and/or Science. Academic Intervention Services and MTSS shall be made available to students with disabilities on the same basis as non-disabled students, provided, however, that such services shall be provided to the extent consistent with the student's Individualized Education Program. If students make adequate progress during the course of MTSS services, they will be exited from the program and a letter will be mailed home to families.

ELA Lab

The ELA Lab is a targeted support block designed to strengthen grade 6-8 students' reading skills. During ELA Lab, students engage in small-group and individualized instruction based on current data, allowing teachers to address specific skill gaps and extend learning as needed. Instruction emphasizes close reading, discussion, and written responses to a variety of literary texts, including short stories, novels, poetry, and drama.

Students work on key comprehension strategies such as citing strong textual evidence, determining theme and central ideas, analyzing characters and their development, and understanding how plot unfolds and changes over the course of a text. ELA Lab instruction is aligned to New York State ELA Standards (Grades 6-8). Overall, ELA Lab provides focused, supportive instruction that helps students build confidence, improve reading proficiency, and develop the analytical skills needed for success with grade-level literature.

Math Lab

The Grades 6-8 Math Lab is a targeted support block designed to strengthen students' foundational math skills and problem-solving abilities. During Math Lab, students engage in small-group and individualized instruction informed by ongoing assessment data, allowing teachers to address specific skill gaps, reinforce grade-level concepts, and extend learning as needed.

Instruction emphasizes conceptual understanding, procedural fluency, and application, with a strong focus on reasoning and mathematical discourse. Math Lab supports students in making sense of mathematics through discussion, visual representations, and written explanations of their thinking. Math Lab instruction is aligned to the New York State Mathematics Learning Standards (Grades 6-8). Overall, the Grades 6-8 Math Lab provides focused, supportive instruction that helps students build confidence, strengthen foundational skills, and develop the mathematical reasoning needed for success with grade-level coursework and assessments.

English Language Arts (ELA) Department Grades 6-12

Department Chairperson:

Mrs. Gilbert

ELA Educators:

Mrs. Beretvas

Mrs. Meyers

Ms. Montgomery-Breh

Ms. Marbot

Mrs. Lamontagne

All students must pass four (4) credits of English Language Arts and the New York State Comprehensive English Regents Examination (11th Grade Year) to meet requirements for graduation.

Honors English students are expected to work with increased rigor and expectation. Honors students will use more complex texts, delve deeper into topics and discussions, and be expected to read and write at higher levels while exhibiting greater stamina. Teacher recommendation is needed for placement in honors courses.

Middle School Courses:

- Middle School Students will complete 3 years of ELA courses: ELA 6, 7, 8. These are mandated courses and prepare students for High School coursework.
- **ELA Lab:** This middle school course provides focused, supportive instruction that helps students build confidence, improve reading proficiency, and develop the analytical skills needed for success with grade-level literature.

High School Courses:

MANDATED (REQUIRED) COURSES:

English 9 (Or English 9 Honors):

Full Year, 1 Credit, Grade 9

Emphasis is upon the reading and interpretation of various types of texts, including classical literature, short stories, poetry, investigative journalism, visual texts, and more. Writing skills in a variety of rhetorical contexts are developed and strengthened, in particular in the genre of argument.

English 10 (Or English 10 Honors):

Full Year, 1 Credit, Grade 10

Writing is a central focus in this course and students will be encouraged to explore creative writing outlets as well as practice more formal and analytical styles of writing. Through analysis of songs, poems, short stories, novels, videos, movies, and TED Talks.

English 11:

Full Year, 1 Credit, Grade 11

Develop students' skills in analyzing complex literary and informational texts as students delve deeply into works by acclaimed authors and historical figures. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills. This course ends with the NYS Comprehensive English Regents Exam, evaluating skills and content from English 9, 10 & 11.

English 12:

Choose 1 Full Year (or 2 Half-Year) Elective Courses Below for the 12th Grade ELA Requirement:

- **Life and Literacy** (*Full Year, 1 credit*): This course focuses on giving students life skills they can use after graduation, including doing presentations, drafting resumes & cover letters, and completing mock interviews.
- **Individual in Society** (*Half Year .5 credit*): course that prompts students along a journey of introspection and self-discovery through the modern lens of society. With roots and philosophy stemming from both sociology and literature, the course promotes societal thinking.
- **Creative Writing** (*Half Year .5 credit*): The course requires students to explore and complete writing in a variety of genres, including poetry, creative nonfiction, short fiction, and drama.

English Language Arts (ELA) Department Continued...

English 12 Electives (cont.):

- **Media Literacy** (*Half Year .5 credit*): This course is an inquiry into the role of the news media in our country. Using a wide-range of texts, including news articles, interviews, and film, students will study the ten central tenets of journalism and how they are demonstrated or distorted by a wide range of press.

OTHER ELECTIVE COURSES:

Note: The 12th grade ELA 12 electives above can also be taken in Grades 10-12 as additional electives as well.

AP English Literature and Composition: (College-Credit)

Full Year, 1 HS Credit/3 College Credits, Grades 11-12

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language. Students enrolled in this course will be expected to take the AP Literature and Composition exam in May. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

Mathematics Department Grades 6-12

Department Chairperson:

Mr. Connolly

Math Educators:

Mrs. Lanzillo

Ms. Korzec

Mr. Cornell

Mr. Connolly

Ms. Overocker

All students must earn three (3) credits in mathematics in high school to meet requirements for graduation with a Regents diploma. Algebra I is mandated, then the 2nd & 3rd required credit is the students' elective choice, depending on their goals.

All students who wish to receive an **Advanced Regents diploma** must successfully complete Algebra I, Geometry, and Algebra II (and pass the corresponding state Regents exams).

Students would choose four (4) Math Courses/Regents Exams if Choosing a STEM Math Pathway to Graduation.

Middle School Courses:

- Middle School Students will complete 3 years of Mathematics courses, MATH 6, 7, 8. These are mandated courses and prepare students for High School coursework.
- 8th Graders have the opportunity to be accelerated in math by taking High School Algebra in their 8th grade year (see below). The Compression Math 7 course teaches concepts from 7th and 8th grade math to prepare students to be accelerated their 8th grade year.

High School Courses:

MANDATED (REQUIRED) COURSES:

Regents Algebra I: Mandated Course

Full Year (or Split Between 2 Years), 1 or 2 Credits, Grades 8-12

- This course covers the following topics: the language and properties of algebra; operations with real numbers; solving and graphing linear equations and inequalities; operations/ factoring polynomials; quadratic equations; operations with radical expressions; probability and statistics. **For graduation, students must pass both the course and the required Regents exam.**
- *This course is offered as an option over one or two years (i.e. Algebra Year 1 and Year 2). In which case, students would learn half the topics one year and the other half the next year, taking the Regents in June of the 2nd year. Earning 2 full credits after the 2nd year.*

ELECTIVE COURSES:

Regents Geometry:

Full Year, 1 Credit, Grades 9-12

Prerequisite: Algebra I

This course covers the following topics: Points, lines, planes, and angles; Inductive and deductive reasoning and proofs; Parallel and perpendicular lines; Congruent triangles; Triangle parts and relationships; Similar triangles and polygons; Right triangle trigonometry; Properties of quadrilaterals; Transformations; Circle parts and relationships; Area of polygons and circles; Surface area and volume of three dimensional figures. This course is a one-year course with a Regents exam at the end.

Regents Algebra II:

Full Year, 1 Credit, Grades 10-12

Prerequisite: Geometry

This course covers the following topics: Review of Algebraic Essentials; Functions as the cornerstones of Algebra II; Linear Functions, equations, and their Algebra; Exponential and logarithmic functions; Sequences and Series; Quadratic functions and their algebra; Radicals and the quadratic formula; Complex numbers; Polynomial and rational functions; Circular Functions; Probability and Statistics. This course ends with a Regents exam.

Consumer Math:

Full Year, 1 Credit, Grades 10-12

This course allows students to gain knowledge and application of basic financial principles in order to make sound financial life choices, helping students to learn life skills through technology, discussions, writing, and real working examples to create a more interactive curriculum that will be beneficial to students. *This class will earn the student a math credit, but not a credit toward an advanced regents diploma, nor provide a required prerequisite to other courses.*

Mathematics Department Continued...

College-bound students should recognize that a Regents program in mathematics might not fulfill the requirements for admission into scientific and technical programs at many local colleges.

Math in Society:

Full Year, 1 Credit, Grades 10-12

This course will focus on math concepts used in the real world. Topics can include, but are not limited to, definitions in geometry, transformations, area and perimeter, measurements, trigonometry, volume and surface area, basics of coordinate geometry, applications of Algebra and Geometry with the graphing calculator, and basic probability and statistics. Each topic will include ties to everyday applications of math to the real world. *This class will earn the student a math credit, but not a credit toward an advanced regents diploma, nor provide a required prerequisite to other courses.*

Pre-Calculus:

Full Year, 1 Credit, Grades 11-12

Prerequisite: Algebra II

Precalculus is a course designed for the math/science oriented college-bound student. Topics of study include but are not limited to trigonometry, probability, matrices and determinants, polynomial functions, and conic sections. This course would be followed by HVCC Precalculus and Calculus.

HVCC Math 170 - PreCalculus:

Half Year .5 HS Credit/3 College Credits, Grades 11-12 (May be taken without college credit)

This course explores the study of algebraic and transcendental functions and their graphs, complex numbers, DeMoivre's Theorem, and applications of these concepts. NOTE: A graphing calculator may be required and will be discussed at the first class. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

HVCC Math 180 - Calculus I:

Half Year .5 HS Credit/3 College Credits, Grade 11-12

Prerequisite: MATH 170, Precalculus or the equivalent.

Topics covered include but are not limited to: limits, continuity, differentiation and integration of elementary functions (including transcendentals), with applications to curve sketching, optimization problems, related rates, area under a curve problems, and solutions to elementary differential equations. NOTE: A graphing calculator may be required and will be discussed at the first class. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

Siena Math 100-Number, Logic, Chance and Change:

Full Year 1 HS Credit, 3 Siena College Credits, Grade 11-12

Prerequisite: Regents Geometry

In this class students work on building confidence with public speaking and develop skills in creating well thought-out presentations. Students learn about the different types of math that aren't seen in a typical classroom and have in-depth decisions about mathematical problems/challenges. Students will work together in groups and communicate to apply theory and reasoning to hands-on, real life, interesting (even fun at some points), and applicable math. The course is more project based, teamwork based, and works with freedom to learn what you want. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

Science Department Grades 6-12

Department Chairperson:

Mr. Mellor

Science Educators:

Mr. Scannell

Mrs. Hunt

Mrs. Hayes

Mr. Toole

Mr. Mellor

Mr. Christian

All students must earn three (3) credits in science in high school

to meet requirements for graduation with a Regents diploma. Biology (*Life Science*) and Earth & Space Science (*Physical Science*) are mandated, then the 3rd required credit is the students' elective choice.

Passing only 1 Science Regents Exam is required for a Regents Diploma.

All students who wish to receive an **Advanced Regents diploma** must successfully complete 3 Science courses (and pass 2 of the corresponding state Regents exams).

Students would choose three (3) Science Courses/Regents Exams if Choosing a STEM Science Pathway to Graduation.

Middle School Courses:

- Middle School Students will complete 3 years of Science courses, SCIENCE 6, 7, 8. These are mandated courses and prepare students for High School coursework.
- *8th Graders have the opportunity to be accelerated in Science by taking High School Biology in their 8th grade year (see below). The Compression Science 7 course teaches concepts from 7th and 8th grade science in order to prepare students to be accelerated their 8th grade year.*

High School Courses:

MANDATED (REQUIRED) COURSES:

Life Science: Biology:

Full Year, Grades 8-9, 1 Life Science Credit

This is a laboratory course, which also includes lectures and class discussions. Topics covered include: cells, biochemistry, plants, and animals, reproduction, genetics, evolution, and ecology. This course ends with the New York State Regents Examination in Biology.

Earth & Space Science:

Can be taken as Regents Earth & Space Science or General, Non-Regents Earth & Space Science (Decision is Student-Dependent)

Full Year, Grades 9-10, 1 Physical Science Credit

Prerequisites: Life Science: Biology

This course provides students with a better understanding of the constant changes occurring on their home planet. Students will study the natural phenomena that are experienced by the Earth and the relationship between Earth and other objects in our solar system and universe. Coursework will include laboratory work, hands-on investigations and projects.

ELECTIVE COURSES:

Chemistry:

Can be taken as Regents Chemistry or General, Non-Regents Chemistry (Decision is Student-Dependent)

Full Year, Grades 11-12, 1 Physical Science Credit

- Prerequisites: Satisfactory completion of the Regents exam in Earth & Space Science, Algebra and Geometry, Biology
- Recommendation: Successful completion of Algebra and Geometry, including a passing grade on the Algebra Regents exam and an average of 70 or better in a Regent's science class. Students wishing to take Chemistry concurrently with geometry should have achieved a final average of 85 or better in a Regents science course. A student who has achieved less than 85 in Algebra may expect considerable difficulty.
- This course focuses on matter, its composition, properties and changes, and the energy relationships in chemical change. This is a comprehensive chemistry course dealing with the substances of the physical world and their interactions at the particle level. Topics include: atomic structure, chemical bonding, periodic properties, acid-base chemistry, electrochemistry, and organic chemistry. Regents Chemistry ends with taking the Chemistry Regents Exam.

Science Department Continued...

All Regents Science Courses have a laboratory requirement, mandatory to complete a certain amount of labs in the year:

Pursuant to Section 207 of the NYS Education Law, Section 8.2(c) of the rules of the Board of Regents states, *“only those persons who have satisfactorily met the laboratory requirements as stated in the State Syllabus for a science shall be admitted to the Regents examination in such science.”*

Successful completion of the State mandated laboratory requirement will be satisfied when the student has completed 1200 minutes of hands-on laboratory experience.

Physics:

Full Year, Grades 11-12, 1 Physical Science Credit

- **Prerequisites:** Algebra 2/Trigonometry, Chemistry or 2 credits in science and teacher recommendation.
- **Recommendation:** Algebra including a passing grade on Geometry regents examination OR have passed Algebra2/Trigonometry. All physics students must be enrolled in a math course.
- Physics represents a comprehensive curriculum including the principles of mechanics, sound, light, electricity, magnetism, and atomic physics.
- The content and methods of this course are indispensable components of all four year college programs in engineering and the physical sciences and many two-year technical programs.
- Regents Physics ends with taking the Physics Regents Exam.

General Physical Science:

Full Year, Grades 11-12, 1 Physical Science Credit

Prerequisites: 1 year life science and 1 year physical science

Emphasizes application and science skills needed to understand the physical worlds we live in. Students will apply engineering practices to design and refine devices that employ scientific principles such as energy and momentum, including concepts from physics and chemistry. Students will learn the basic concepts of Newton's laws, energy, light, structure of matter, and chemical equations.

Marine Biology:

Full Year, Grades 10-12, 1 Life Science Credit

- **Prerequisite:** Two science credits, one must be Regents Biology and a passing grade on a Regents science examination OR successful completion of BOTH the Biology and Earth & Space Science or General Science.
- The theme of this course will be meeting the challenges presented to organisms by the marine environment. The course will provide an overview of the physical marine environment including geography, physics, and chemistry of the ocean. Students will conduct lab activities, study and maintain a marine habitat, and learn about careers in this field of science whose subject covers over 70% of our planet.

Siena Chemistry:

Full Year, Grade 11-12, 4 college credits (3 credits + 1 credit lab)

- **Prerequisite:** Successful completion of Regents Chemistry with 80% or better final student average, teacher recommendation, and successful completion of Geometry.
- **Corequisite:** Regents Physics
- Siena Chemistry consists of two college level courses designed as a second chemistry course for high school students. CHEM - 110, 111 - Fundamental laws and principles of chemical structure and reactivity. This can include the study of atomic models, stoichiometry, periodic trends, molecular theories, reaction types, nuclear chemistry, gasses and kinetic molecular theory.
- CHEM - 120, 121 - Properties of solids and solutions, intermolecular forces, thermodynamics, equilibrium, acids and bases, chemical kinetics, and electrochemistry.

Science Department Continued...

- *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

SUNY Environmental Science:

Full Year, Grades 11-12, 1 HS Credit/3 SUNY ESF credits, AP Exam Optional

Prerequisite: Regents Biology, Regents Earth & Space Science

Corequisite: Regents Chemistry

- SUNY ESF - EFB 120 - The Global Environment and the Evolution of Human Culture: This course will help you to gain the knowledge and tools to make informed decisions regarding the environment and the earth's future and to be able to understand the connections between such varied topics as pollution, deforestation, climate change, acid rain, soil depletion, economics, evolution, history and social justice.
- Coursework will concentrate on hands-on activities and projects, including fieldwork and labs.
- *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

INDEPENDENT STUDIES:

The following offerings are for students interested in science, but who don't necessarily have room in their normal schedule for a full class.

Independent Study in Science:

Half Year, .5 Credit, Pass/Fail, Grades 11-12

- Prerequisites: Successful completion of three credits in science or two credits in science with a corequisite of a third.
- Intended as an enrichment course for students seeking a chance to explore a specific topic in detail. This is an opportunity for upperclassmen to explore a long term project in science with a focus on a specific process with a desired outcome. This may include simple aquaculture or husbandry projects as well as genuine scientific research.
- Entry into the course will require a proposal of a project by the student due to the teacher of record before the conclusion of the previous school year. The proposal will include a goal for the project, a description of work to be done throughout the course and a plan for reaching that goal. The course will require record keeping of work performed throughout the project as well as a final, formal, presentation of results.
- *Work for this class is conducted outside the student's regular school day.*

Social Studies Department Grades 6-12

Department Chairperson:

Mr. Gould

Social Studies Educators:

Mrs. Hammersmith

Mrs. Hunt

Mr. Viner

Mrs. Thibeau

Mr. Gould

All students must earn three (4) credits in social studies in high school to meet requirements for graduation with a Regents diploma. Successful completion of Global History I, II, U.S. History and Government, Economics & Participation in Government are mandated. Passing the Global History Exam is required for a Local Diploma.

All students who wish to receive an **Advanced Regents diploma** must successfully complete all 5 courses and also pass the **U.S. History Regents Exam** if Choosing **Humanities Social Studies Pathway for Graduation.**

Middle School Courses:

- Middle School Students will complete 3 years of Social Studies courses, SOCIAL STUDIES 6, 7, 8. These are mandated courses and prepare students for High School coursework.

High School Courses:

MANDATED (REQUIRED) COURSES:

Global History I:

Full Year, 1 Credit, Grade 9

The Global History curriculum is covered in two grade levels: 9 and 10. Global History I provides students an understanding of social studies standards according to history, geography, economics and civics. Global History I topics include introduction and examination of ancient world civilizations and belief systems; expansion, exchange and encounters among world civilizations; global interactions and the first Global Age.

Global History II:

Full Year, 1 Credit, Grade 10

Prerequisite: Global History I

- In the second year of the curriculum, students enrolled in Global History II study the following topics: An Age of Revolutions, A Half-Century of Crisis and Achievement, The 20th Century since 1945 and Global Connections and Interaction.
- **With Teacher Recommendation, eligible 10th grade students may take this course as Hudson Valley Community College (HVCC) Credit for 6 college credits.** There are costs associated with these college courses. Financial help is available to students who meet criteria.
- Students will take the Global History Regents Examination, including topics from both Global I and Global II at the end of either course.

U.S. History & Government:

Full Year, 1 Credit, Grade 11

Prerequisite: Global History II

- This course begins with the colonial and constitutional foundations of the United States and explores the government structure and functions written in the Constitution. We'll explore the development of the nation and the political, social, and economic factors that led to the challenges our nation faced in the Civil War. 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. We'll 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.
- **With Teacher Recommendation, eligible 11th grade students may take this course as Hudson Valley Community College (HVCC) Credit for 6 college credits.** There are costs associated with these college courses. Financial help is available to students who meet criteria.
- Students who choose to take these courses still have to successfully complete the US History Regents in June.

Social Studies Department Continued...

Economics & Participation in Government:

Full Year, 1 HS Credit, Grade 12

Prerequisite: U.S. History & Government

- Students respond to local, state, national, and global issues and participate in representative public policy issues from a decision-making perspective. This course reviews the fundamental concepts & principles of economics as basic parts of the American economic system. Students will gain the knowledge and skills necessary to function as informed and economically literate citizens in our society and globally. As a culmination of the social studies program, this course fosters the development of the following characteristics that define a citizen: civic-mindedness, civic intelligence, and civic literacy.
- *Seniors are required to complete a Community Service component before Graduation through this course.*

ELECTIVE COURSES:

World War II:

Half Year, .5 Credit, Grades 11-12

Prerequisite: Global I & II

This course deals with the entire scope of World War II, the struggle as it played out around the globe. The course focuses on the land & naval campaigns in the Pacific & Asia, the German conquest of Western Europe, the struggle between Germany and the Soviet Union, and the role of the Allied nations and the Soviets in the final liberation of Europe. Students examine the strategy, organization, equipment, and leadership of the German, Japanese, Soviet, and Western Allied Armies, including the operations and the major battles of the war from 1939 to 1945.

Cold War:

Half Year, .5 Credit, Grades 11-12

Prerequisite: Global I & II

This course examines the Cold War as a global phenomenon, covering the military and diplomatic history of the period, as well as examining the social and cultural impact of the superpower confrontation. Students identify the origins of the conflict, the interplay between periods of tension and detente, the relative significance of disagreements within the opposing blocs, and the relationship between the "center" of the conflict in the North Atlantic/European area and the global "periphery."

United States History: Exploring Conflict in History

Half Year, .5 Credit, Grades 11-12

The definitions of rebellion and terrorism have changed over time as societies have adapted to new realities. This course will explore:

- Terrorism from inside of the United States pre-20th century
- Terrorism inside of the United States during the 20th/21st centuries
- Terrorism from external groups. It will then look to the future of terrorism and its complex relationship with the US.

Siena Psychology (or AP Psychology, Depending on the School Year):

Full Year, 1 HS Credit/3 College Credits, Grades 10-12 (per teacher recommendation)

The purpose of this college-credit Psychology course is to introduce students to the study of the behavior and mental processes of the human brain. Explore the ideas, theories, and methods of the scientific study of behavior and mental processes. You'll examine the concepts of psychology through reading and discussion and you'll analyze data from psychological research studies. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

Physical Education (PE) & Health Department Grades 6-12

Department Chairperson:

Mrs. Honsinger

PE/Health Educators:

Mrs. Honsinger

Mrs. Berschwinger

Mr. Weaver

All high school students must earn a half (.5) credit in Health and two (2) full credits in Physical Education (.5 each year for 4 years) to meet requirements for graduation with a Regents diploma.

Middle School Courses:

- Middle School Students will complete 3 years of PE courses (Grades 6-8, every other day), and 2 half-year Health courses (6th and 8th Grade)
- These are mandated courses and prepare students for High School coursework.

High School Courses:

MANDATED (REQUIRED) COURSES:

High School Health:

Half Year, .5 credit, Grade 10 & 11

The purpose of this course is to provide students with information to make healthy choices, understand the benefits of a healthy lifestyle, identify risky behavior, and manage personal physical, mental and social health.

Physical Education (PE):

Each Year, Half Year, .5 credit, Grades 9, 10, 11, 12

- **Students may take Traditional PE, Sports PE or Fitness PE as their choices for each year's half credit of required PE (descriptions below).**
- **Traditional PE:** The focus of Traditional PE is to provide students the opportunity to demonstrate the knowledge and skills to achieve a health enhancing level of physical activity and fitness. We will be focusing on ensuring students recognize the value of physical activity for overall wellness, enjoyment, challenge, and/or self-expression. Then apply principles, concepts and tactics in a variety of sports, dance and movement activities (locomotor, non locomotor, communicative, and manipulative skills). Students will leave PE with the knowledge and understanding to recognize career opportunities and manage personal and community resources related to physical activity and fitness to achieve and maintain overall wellness.
- **Sports PE:** This course is an in-depth and intensive physical education class that emphasizes team sports and vigorous participation. Each unit will be 6-8 weeks in length. Students will be expected to learn and understand the rules, skills, etiquette and strategies necessary to be proficient in a variety of activities. Students will be prepared to play and participate in a team setting, with cooperation and good sportsmanship will be required.
- **Lifetime Fitness:** This course emphasizes fitness related activities, individual and lifetime sports. Each unit will be 4-6 weeks in length and will include the four components of physical fitness (strength, flexibility, muscle endurance and cardiovascular endurance). Students will be engaged in 30-40 minutes of moderate activity.

Physical Education (PE) & Health Department Continued...

ELECTIVE COURSES:

Strength and Conditioning:

Half Year, .5 credit, Grades 11-12

- This course will provide opportunities for students to develop and display safe strength training techniques in an atmosphere focused on their own personal improvement development. Strength training is an important part of a total fitness routine. Students will also be provided an opportunity to learn and practice technique and etiquette in a fitness center environment. Activities in this course are designed to utilize small groups, few rules and meaningful practice to maximize student engagement.

Responding to Emergencies:

Half Year, .5 credit, Students must be at least 16 years of age

20 week First Aid/CPR/AED Certification Course

- The purpose of this course is to help participants recognize and respond appropriately to cardiac, breathing and first aid emergencies until advanced medical personnel arrive using American Red Cross Approved curricula written lessons, practicum, scenario re-enactment and video clips.
- Three (3) hours of community service is required (mandatory one hour of service at a community Firehouse).
- Duties are to clean and maintain first aid equipment, inventory and replenish coaches' first aid kits, assist coaches as a first aid manager, promote safety and violence prevention.
- Students must score an 80 or higher on the ARC Responding to Emergencies examination.

World Language Department Grades 7-12

Department Chairperson:

Mrs. Colbert

World Language Educators:

Ms. Day

Distance Learning - ASL

All students must earn one (1) credit in World Language (Spanish 1 and the Checkpoint A Local Exam) to meet requirements for graduation with a Regents diploma.

If choosing the World Languages Sequence Pathway, students will complete 3 Courses: Spanish 1, Spanish 2 and Spanish 3, as well as passing the State Assessment Exam: World Language Checkpoint B Local Exam.

It is strongly recommended that students continue in World Language if their post-graduation goals are to attend a 4-year college institution. The exception is if their goals include Art, Design or Music.

MANDATED (REQUIRED) COURSES:

Spanish 1:

1 Full Year, 1 High School Credit, Grade 8

- This course is an introduction to the basics of the Spanish language and cultures. The four primary language skills of hearing, speaking, reading and writing will be covered. Students will learn grammar and vocabulary through reading short stories. They will develop speaking skills through conversation and working with partners and in groups. Students will explore Hispanic cultures.

IF the student is not able to complete Spanish 1 in Middle School as outlined above, there are 2 alternative options to secure that credit (Option Offered Depends on the School Year):

- **Spanish 1 (Distance Learning):** *Grades 8-12*
- **OR**
- **Spanish Culture:** *Grades 9-12*

HIGH SCHOOL ELECTIVE COURSES:

Spanish 2:

Full Year, 1 Credit, Grade 9-12

Prerequisite: Spanish 1

- This course focuses on the development of communication and comprehension skills. Knowledge of vocabulary and commonly used idioms is expanded. A more in-depth understanding of the language is explored for the purpose of building fluency. Conversational proficiency is developed through the use of dialogues. Students will increase their language skills through reading chapter books in Spanish.

Spanish 3:

Full Year, 1 Credit, Grade 10-12

Prerequisite: Spanish 2

- This course integrates all four skills (understanding, speaking, reading and writing). Students will read and use authentic sources from the target language. They will learn about the geography, history, and culture of Spanish speaking countries. Students will focus on speaking skills through oral readings, conversation and presentations.

“Spanish 4/5” - Hudson Valley Community College (HVCC) Spanish 200 – Language and Culture IV & Spanish 201 – Language and Culture V: Full Year, 1 High School Credit/6 HVCC Credits, Grade 11-12
Prerequisite: Spanish 3 & Teacher Recommendation

- This college credit course offers a review and extension of grammar and concentrates on improving the student's vocabulary, conversational fluency and reading skills through the discussion of selected readings in Spanish. Classroom discussions, conducted primarily in Spanish, are supplemented with exercises from the textbook. *There are costs associated with this college course. Financial help is available to students who meet criteria.*

Visual Arts Department Grades 6-12

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Department Chairperson:

Mrs. Colbert

Art Educators:

Mrs. Colbert

Ms. DeCelle

All students must earn one (1) high school credit in Art, Music or Design & Draw to meet requirements for graduation.

If choosing an Arts Sequence, students must complete five (5) credits of Visual Arts courses.

If choosing a 4+1 Arts Pathway to Graduation, students must complete AP: 2D Design in their 11th grade year, plus a 5 credit sequence in other Visual Arts courses.

MANDATED (REQUIRED) COURSES:

Middle School Students will complete .75 credits of Visual Arts courses: ART 6, 7, 8 (Quarter Year Each or Every Other Day for Half Year). These are mandated courses and prepare students for High School coursework.

HIGH SCHOOL ELECTIVE FOUNDATIONAL COURSE:

Studio in Art:

Full Year, 1 HS Credit, Grades 9-12

Prerequisite: None

Studio in Art is the foundation for all other high school art courses. Students must take this before any other art electives. Students are taught the skills and techniques of how to use and investigate many art media, such as **drawing, painting, printmaking, sculpture, ceramics, photography, architecture, illustration and design.**

BEGINNER ELECTIVE COURSES:

Drawing & Painting:

Full Year, 1 HS Credit, Grades 10-12

Prerequisites: Studio in Art (or concurrent enrollment with)

Always wanted to learn to draw? In this course, you are taught the techniques of drawing in depth including different techniques in Graphite, Charcoal, Marker, Colored Pencil, Oil Pastel, Collage, Digital Art, and more! In this course, you are also taught how to progress in your painting skills, including techniques in Watercolor, Inks, Acrylic and Oil Paint. You don't have to already be a drawer/painter to take this course!

Sculpture & Ceramics:

Full Year, 1 HS Credit, Grades 10-12

Prerequisites: Studio in Art (or concurrent enrollment with)

For the 3D Artists! Do you love working with your hands and building with different types of materials? Love getting messy with clay? This course explores 3D art through different mixed media. We learn about space and form through exploration of wire, paper, cardboard, polymer, plaster and wire sculptures, among others! We will also investigate many techniques within ceramic pottery (clay) including handbuilding and work on the potter's wheel. Students will learn different forms of construction, as well as surface treatments and glazing.

Media Arts:

Full Year, 1 HS Credit, Grades 10-12

Prerequisites: Studio in Art (or concurrent enrollment with)

Digital Photography, Adobe Photoshop and Printmaking - the triad of tools for Graphic Designers. Graphic Design is the career that designs advertisements, logos, t-shirts, websites and the other media around us. Along with learning the Adobe Suite, including skills in Illustration, Film and Animation, you will learn how to take and edit proper photographs for a well-rounded skill set.

The Art of Light:

Full Year, 1 HS Credit, Grades 10-12

Prerequisite: Studio in Art (or concurrent enrollment with)

From Stained Glass to Pixels, the Art of light explores the transformation of visual art from historic stained glass techniques to today's digital design. Students will work with both physical and digital materials, learning how light, color, and composition shape artistic expression across eras.

Visual Arts Department Continued...

Introduction to Photography:

Full Year, 1 HS Credit/Option for 3 HVCC Credits, Grades 10-12

Prerequisites: Studio in Art (or concurrent enrollment with)

Can be taken for just HS credit OR for college credit. Why not earn Hudson Valley Community College (HVCC) college credit while learning the basics of the field of photography? Students will learn basic digital photography skills, alternative processes, and manipulation/editing through Adobe Photoshop. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

INTERMEDIATE ELECTIVE COURSES:

Intermediate Studio:

Full Year, 1 HS Credit, Grades 11-12

Prerequisites: Studio in Art, at least one Beginner Elective (or Teacher Recommendation)

Intermediate Studio is the middle level art course to allow students to explore their own fine art-making and get to know the Artistic Process in a deeper, more meaningful way. Students may choose their own path in many media areas including, but not limited to: Drawing, Painting, Collage, Printmaking, Graphic Design, Photography, Sculpture or Ceramics (or a mixture!). This course can also be used for pre-portfolio development for students wishing to take AP Studio Art: 2D Design the following year. **It can be taken multiple school years.**

ADVANCED ELECTIVE COURSES:

AP Studio Art: 2D Design (Advanced Placement Studio Art in Two-Dimensional Design):

Full Year, 1 HS Credit, 3 College Credits, Grades 11-12

Prerequisite: Intermediate Studio and/or Teacher Recommendation

This college-level course develops a well-rounded AP portfolio demonstrating understanding of 2D Design through drawing, printmaking, photography, graphics and the Art Elements & Principles of Design. Successful completion of this course can be used for the Alternate Pathway to Graduation. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

HVCC Credit Survey of Art History I & II:

Full Year Course, 1 HS Credit/ 6 HVCC credits, Grades 10-12

Prerequisite: None, Any Student Grades 10-12 with Teacher Recommendation

Most college programs require at least one Art or Art History Course to get your degree. Why not earn those credits while still in High School? We will be exploring the Art and culture from the ancient civilizations to the mid-gothic period in Survey I, and the late gothic period to modern art in Survey II, both through projects, reading, writing, analyzing and, most importantly, discussion! You will leave this course with 6 humanities credits from HVCC. Taking this course is highly recommended for a student wishing to pursue the Visual Arts/Design post-graduation. *There are costs associated with this college course. Financial help is available to students who meet criteria.*

Music Department Grades 6-12

Department Chairperson:

Mrs. Colbert

Music Educators:

Mrs. Gould

Mrs. Modesitt

All students must earn one (1) high school credit in Art, Music or Design & Draw to meet requirements for graduation.

If choosing a Music Sequence, students must complete 3 or 5 more credits of Music courses.

If choosing a Music Pathway to Graduation, students must complete AP Music Theory and it's accompanying AP Examination.

For students with scheduling constraints, Independent Studies are available. Please speak with your School Counselor and Music Teachers, if this applies to you.

MANDATED (REQUIRED) MIDDLE SCHOOL COURSES:

Middle School Students must complete at least .75 credits of Music courses from 6th to 8th grade. These are mandated courses and prepare students for High School coursework.

- 6th Grade: 6th Grade General Music (One Quarter or Every Other Day for Half Year).
- 7th Grade: 7th Grade General Music (One Quarter or Every Other Day for Half Year)
- 8th Grade: 8th Grade General Music (One Quarter or Every Other Day for Half Year) OR Enrollment in Band or Chorus.

MIDDLE SCHOOL ELECTIVE COURSES:

- **6th Grade Band** (.5 Credit, Every Other Day for the Year)
- **6th Grade Chorus** (.5 Credit, Every Other Day for the Year)
- **7th/8th Grade Band** (.5 Credit, Every Other Day for the Year)
- **7th/8th Grade Chorus** (.5 Credit, Every Other Day for the Year)

HIGH SCHOOL FOUNDATIONAL ELECTIVE COURSES:

Music Appreciation:

Full Year, 1 HS Credit, Grades 9-12

Prerequisite: None

This course fulfills the Fine Arts graduation requirement. Students will listen and respond to a wide variety of music genres, improve music literacy through performance on keyboard or guitar, understanding music history and theory, and encourage creativity through improvisation and compositions.

HS Band:

Every other day, .5 HS Credit Each Year, Grades 9-12

Prerequisite: None (but MS Band or other experience is recommended)

- 2 years of this course can function as the required 1 credit of Music/Art for HS graduation.
- Study and perform music of diverse time eras, cultures, religions, and styles.
- Expand on music literacy, knowledge of music history, and theory.
- Demonstrate proper playing technique and instrument care including breath support, good tone, and maintenance.
- Develop habits that encourage success and professionalism within and outside the music classroom.

HS Chorus:

Every other day, .5 HS Credit Each Year, Grades 9-12

Prerequisite: None (but MS Chorus or other experience is recommended)

- 2 years of this course can function as the required 1 credit of Music/Art for HS graduation.
- Study and perform music of diverse time eras, cultures, religions, and styles.
- Expand on music literacy, knowledge of music history, theory and aural skills.
- Demonstrate proper singing technique and vocal care including breath support, good tone and diction, and proper voice placement.
- Develop habits that encourage success and professionalism within and outside the choral classroom

Music Department Continued...

HIGH SCHOOL UPPER ELECTIVE COURSES:

Chamber Choir:

Half Year, .5 HS Credit, Grades 9-12

Prerequisite: Audition-Dependent Enrollment

- Study a variety of genres of choral music.
- Fostering tonal independence with mostly a cappella performance.
- Understanding of music literacy when relating to a variety of genres.
- Provide additional performance opportunities.

Jazz Band:

Half Year, .5 HS Credit, Grades 9-12

Prerequisite: Minimum of two years experience playing their instrument

- Study a variety of genres of music (including but not limited to: Jazz, Blues, Swing, Rock, Pop, etc).
- Fostering solo performance and improvisational skills on their primary/secondary instruments.
- Understanding of music literacy when relating to a variety of genres (including but not limited to: Jazz, Blues, Swing, Rock, Pop).
- Provide additional performance opportunities.

AP Music Theory or SUNY Albany/SCCC Music Fundamental Theory:

Full Year, 1 HS Credit/3 College Credits, Grades 10-12

Prerequisite: None

This course is an introductory college-level music theory course. Students cultivate their understanding of music theory through analyzing performed and notated music as they explore concepts like pitch, rhythm, form, and musical design. This course does NOT include a performance component (singing or playing) so musical skills experience is not necessary. *There is a cost associated with this college course. Financial help is available to students who meet criteria.*

CTE (Engineering Technology/ FACS) Department Grades 6-12

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Department Chairperson:

Mrs. Colbert

Technology Educator:

Mrs. Wetmore

FACS Educator:

Mrs. Hammersmith

*Technology Courses are highly recommended for any students going into **STEM, Computer Science, Engineering, Architecture, Manufacturing, Construction or other related fields.***

There are currently no on-campus FACS courses at the High School Level.

MANDATED (REQUIRED) MIDDLE SCHOOL COURSES:

During Grades 6-8, Middle School Students must complete 1.75 units of Career & Technical Education (CTE), which includes coursework in Family & Consumer Sciences (FACS) and Computer Science (Technology).

HIGH SCHOOL BEGINNER ELECTIVE COURSES:

Drawing & Design for Production (DDP)/Introduction to Engineering Design:

Full Year, 1 HS Credit, Grades 9-12

Prerequisite: None

This course can fulfill a HS students' fine arts credit for graduation. This course is a pre-engineering course which introduces the process of design as an engineering tool. Unit topics include: professional portfolio development, orthographic drawing, product development, marketing/presentation skills, Computer Aided Design (CAD) as a design tool and Reverse Engineering. There are major projects each quarter, including Wooden Puzzle Cube Design, Package Design, Train Design Project & C02 Dragster Design.

Materials Processing:

Full Year, .5 HS Credit, Grades 10-12

Prerequisite: None

This course will provide students an opportunity to develop personal skills and knowledge while working with wood, glass, plastic, and metal. Students will be instructed in the safe and proper use of tools, machines and the materials commonly used in the manufacturing and construction industries. Material Processing students will develop the personal skills and knowledge necessary to form a foundation for further study in a variety of occupational areas and careers. Student projects include:

- Shaker Oval Box/Shaker Oval Tray
- Wooden Mechanical Pencil
- Lampworking to create a Glass Bead
- Plastic Molding - Golf Tee & Zipper Pull Tag
- Plastic Pen
- Metal Tool Tray
- Candy Dispenser

HIGH SCHOOL UPPER ELECTIVE COURSES:

CAD - Topics in 2D AutoCAD/HVCC CADD 100:

Full Year, 1 HS Credit/4 College Credits, Grades 10-12

Prerequisite: None

This course is an introduction to the principles of drafting that are used in industry. Topics include CAD related career exploration, technical sketching, lettering, geometric constructions, multi-view drawings, and dimensioning practices. Utilizing current computer aided drafting (CAD) software, students will apply standard drafting theory to a diverse set of two-dimensional computer aided drafting applications. Topics included in this comprehensive, introductory level course are: preliminary CAD software techniques, basic computer skills, creation and editing of geometry, plotting, single and multiple view drawings, coordinate systems, dimensioning and basic block use. *There are costs associated with this college course. Financial help is available to students who meet criteria.*

CTE (Engineering Technology/ FACS) Department Continued...

Digital Electronics/HVCC ELET 210:

Full Year, 1 HS Credit/4 College Credits, Grades 10-12

Prerequisite: None

This course introduces the students to digital systems. The topics covered include: Number Systems, Boolean Algebra, Logic Gates, Logic Simplification, implementation and analysis of digital systems, Flip-Flops, Counters, adders. Students will create digital circuits to accomplish a variety of outcomes using various electronic components. Each quarter will conclude with a soldering project. *There are costs associated with this college course. Financial help is available to students who meet criteria.*

Siena College Introduction to Computer Science/CSIS 110:

Full Year, 1 HS Credit/3 College Credits, Grades 10-12

Prerequisite: None

This course is intended for students with little or no programming experience. It aims to provide students with an understanding of the role computation can play in solving problems and to help students feel justifiably confident of their ability to write small programs that allow them to accomplish useful goals. Using the Python programming language, students write programs that operate on images, sounds and Animations. *There are costs associated with this college course. Financial help is available to students who meet criteria.*

Siena College Web Design/CSIS 180:

Full Year, 1 HS Credit/3 College Credits, Grades 10-12

Prerequisite: None

This is an introductory course where students will learn the fundamentals of designing web pages that are functional, accessible, extensible, and aesthetically pleasing. Students will:

- Build web pages using HTML with links, images, tables, and forms.
- Use style sheets (CSS) to add colors, backgrounds, text format, page layout, and basic animations.
- Design web sites that display properly on mobile and touch screen devices.
- Learn about and build sites that meet accessibility requirements.

There are costs associated with this college course. Financial help is available to students who meet criteria.

Engineering Design & Development Capstone

Full Year, 1 HS Credit, Grades 11-12

Prerequisite: Taken 3 CTE courses in HS or teacher permission

In this course, students learn STEM fundamentals including: physics, engineering design, and electronics through hands-on drone operation, building, and repair while developing crucial life skills like teamwork and leadership all within an exciting competitive team sport setting that mirrors aerospace industry practices. *Students may be able to compete in drone soccer competitions based on enrollment.*