



ST. MARY'S HIGH SCHOOL
LANCASTER • NEW YORK

Course Catalogue

2019-20
Academic Year

Preparing young men and women for college and beyond

Fine Arts Department

Advanced Ceramics (3D Art)

1/2 Credit

A studio exploration of 3D art, starting with clay used in ceramics and additive sculpture, followed by subtractive and constructive 3D mediums. Students will select the medium of their choice for a final project. Art history lectures and documentaries germane to the subject and professional 3D artist guest speakers will also be provided.

Art 9

1/2 Credit

Basic 2D art and design foundations elements and principles will be studied in this studio course. Projects will be given in a sequential manner specific to the design considerations being explored.

Art 10

1/2 Credit

Meant to follow ART 9; 2D color theory elements, principles and theory will be examined in this studio course. Projects will be given in a sequential manner specific to the color theory considerations being explored.

Advanced Drawing and Painting

1/2 Credit

A studio exploration of 2D art concepts through the medium of drawing and painting. Basic drawing and painting techniques, principles, theory and history will be examined, culminating in a mixed media final project combining the two. Documentaries germane to the subject and professional artist guest speakers will be provided.

Advanced Digital Photography

1/2 Credit

An examination of basic design elements and principles through the medium of digital photography. Projects are geared to explore individual design considerations. Photoshop will be used specifically to enhance the quality of the photographs taken for these projects. Art history of photography will be studied and professional photographer guest speakers will be provided.

Business & Computer Science Department

Business

Accounting

1/2 Credit

Grades 11-12

Accounting is highly recommended for college-bound students considering accounting, business, or economics. This course is designed to introduce students to real-world concepts in today's business environment. Accounting starts with the elementary principles of debits and credits and ends with the balance sheet and income statement.

Business Law

1/2 Credit

Grades 10-12

Business Law is an interesting and educational class that is encouraged as an elective for all students. In this course, students develop a respect for and understanding of business law and law enforcement as it affects the student's personal, family, and occupational pursuits. An introduction to our legal system, court procedures, and the jury process will be presented. Students become aware of the need for legal assistance in a variety of day-to-day business transactions, so that they may avoid legal entanglements by having a working knowledge of their rights and obligations. Students who plan on majoring in business, economics, government, or history are encouraged to take this class.

Computer Science

21st Century Computing

1/2 Credit

Grade 9

This is a **mandatory** course that will provide an introduction to the computer, exploring the essential concepts and information about the computer. A practical knowledge of Windows and Google Chromebooks and apps is achieved. Students will also develop proficiency in using an integrated Office Suite package, which includes word processing, spreadsheet, and presentation software. Current issues such as social networking and Internet safety are explored.

Computer Science

1/2 Credit

Introduces students who are interested in any computer or engineering field to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, Computer Science prepares students for college and career. Students who pass this semester-long, Honors-level course will have the option of taking AP Computer Science Principles as an independent study class.

Recommendation for students in grade 10-12

Internet and Web Page Development

1/2 Credit

This course is designed to introduce students to the fundamentals of web site creation. Students will develop, manage, and maintain professional websites using HTML, XHTML and Cascading Style Sheets. The complete production process including pre-production planning, layout and design considerations (including site maps and navigation), testing, uploading and implementing the site, maintenance and applicable legal and ethical issues are covered. Professional web design software and production tools are used for graphics development, image manipulation, and page/site layout in the hands-on laboratory exercises.

Prerequisite: 21st Century Computing and Digital Art

3D Computer Automated Design I

1/2 Credit

Using modeling software, students will build real-world objects in a three-dimensional environment. Students will print some of their work on a 3D printer and create movies that illustrate their completed projects. The skills gained in this course will help students prepare for possible careers in such fields as graphic design, game design, animation, simulation, and engineering.

3D Computer Automated Design II

1/2 Credit

Building upon 3D CAD I, students create and print more complex three-dimensional drawings. Students also create more complicated movies that animate as well as illustrate their projects.

Prerequisite: 3D Computer Automated Design I

Advanced Placement Computer Science Principles

1/2 Credit

This semester-long course is a continuation of Computer Science that will prepare the student for earning AP credit. Students explore the impact of computing on social, economic, and cultural areas of our lives. Students create computational artifacts through the design and development of programs. The cost of the A.P. exam is approximately \$90.

Prerequisite: Successful completion of Computer Science

Advanced Placement Computer Science

1 Credit

This course is a college-level course for students who are interested in computer science or engineering. It will continue object-oriented programming with an emphasis on Java. The course will also cover the case study recommended by the College Board. Students will be prepared for the Advanced Placement Exam. The cost of the A.P. exam is approximately \$90.

Prerequisite: Successful completion of Computer Science

English Department

English 9

1 Credit

This course studies literary genres including short stories, poetry, novels, nonfiction, and drama. Also integral to the course are writing skills, concentrating on content, sentence structure, paragraphing, and organization for the digital

and competitive working world. Drama includes a Shakespearean play. Vocabulary acquisition and text analysis are required. Assignments include reading, compositions, reports, and creative projects. Summer reading is mandatory.

English 9 Honors

1 Credit

This course will cover the English 9 course requirements at an accelerated pace. Several additional works will be studied to help students further develop their literary appreciation and writing skills. Honors classes for underclassmen are preparation for junior and senior year Advanced Placement courses in English. Vocabulary acquisition and text analysis are required to prepare for the digital and competitive working world. Completion of summer reading is mandatory.

Prerequisite: Department recommendation

Reading Development

1/2 Credit

Grade 9

Reading Development is a requirement of some ninth graders, based upon the scores received on the Reading Comprehension portion of the High School Entrance Exam. Students will read in several genres: magazine, newspaper, short play, short story, and nonfiction textbook selections. Skills will be practiced for comprehension such as prediction, paraphrasing, noting contextual clues, noting author's use of diction, syntax, tone, and others. Much time is devoted to reading, the research-proven method to improve reading skills. To this end, many Fridays will be devoted to individual free reading. A final project will be required based on the book selection. Each student's improvement, assessed by a pre and post-course exam, will also determine the final grade. This is a one-semester course.

English 10

1 Credit

The second year of English is an overview of World Literature. The study involves deepening the understanding of literary forms such as the novel, drama, short story, nonfiction, and poetry begun in the freshman year. Mastery of vocabulary and progress in grammar are considered essential. Outside assignments include novel reading, composition, and projects. Completion of summer reading is a requirement of the course.

Prerequisite: Successful completion of English 9

English 10 Honors

1 Credit

The second year of English is an overview of World Literature. The study involves a deeper understanding of literary forms such as the novel, drama, short story, nonfiction, and poetry. A major stress is placed on reading assignments and analytical essays. The titles of novels to be read will be selected from a preparatory college reading list. Mastery of selected vocabulary will be expected. Outside assignments include reading, composition, and research work. Honors classes for underclassmen are preparation for junior and senior year Advanced Placement courses in English. Completion of summer reading is a requirement of the course. The course pace is accelerated.

Prerequisite: Department recommendation

English 11 — Regents

1 Credit

This course is a survey of major American writers. The course is approached from the type of literature studied historically and chronologically. There is also a focus on reading and responding to works of nonfiction. Research techniques are an integral part of the course work. Other types of writing, such as analysis and argument, are taught. All students will take the Comprehensive English Regents Exam in June. Summer reading is required.

Prerequisite: Successful completion of English 10

English 11 – Advanced Placement English Language & Composition

1 Credit

This college-level course is the equivalent of English 11 Honors. The student who selects this course should be college-bound and have a good command of reading, writing, and discussion skills. This course mirrors the freshman college composition course all college students take in the beginning of their freshman year. The emphasis of the literature studied in this course is nonfiction. A research paper is required each semester. Nightly assignments of reading and/or writing can be expected. At the end of the year, students will take the A.P. Language and Composition Exam. The cost of this exam is approximately \$90. Students who pass the A.P. Exam may be eligible for college credit. A summer reading assignment, including written paper due upon return in the fall, will be required and will be incorporated into the first marking period grade.

Prerequisite: Successful completion of English 10 Honors, with an average of 92 or better OR teacher recommendation

Note – AP Language students will also take the New York State English Regents Exam in June.

Writing Development

1/2 Credit

Grade 11

This course is designed to aid students weak in composition. It is mandatory for juniors who have been identified by the English Department as having difficulty with writing skills at the end of their sophomore year. This course is offered in addition to the regular requirements in English. Satisfactory completion of assigned writing is a must for credit.

English 12- Introduction to College Composition

1 Credit

Introduction to College Composition will introduce the various forms of reading and writing expected of college freshmen. This course will also prepare students for the expectations of reading and communication beyond high school. This course will require students to complete one polished piece of writing per quarter, as well as several small essays. In addition to the required Shakespearean play, students will be responsible for completing various supplemental readings (newspaper articles, scholarly journal articles, digital publications, etc.). English 12 also gives students introductory lessons in print journalism and requires them to contribute to *The Marian Gazette* newspaper. Summer reading is a requirement of the course.

Prerequisite: Successful completion of English 11

English 12 – Advanced Placement English Literature & Composition

1 Credit

This college-level course is the equivalent of English 12 Honors. The student who selects this course should be college-bound and have a good command of reading, writing, and discussion skills. Nightly assignments of reading and/or writing can be expected. At the end of the year, students will take the A.P. English Literature and Composition Exam. The cost of this A.P. exam is approximately \$90. Students who pass the A.P. exam may be eligible for college credit. A summer reading assignment, including written paper, is due upon return in the fall; completion of this assignment is a course requirement.

Prerequisite: In order to take the course, the senior must have either scored mastery level on the New York State English Regents Exam or scored a 3 or higher on the AP English Literature and Composition Exam.

Electives

Creative Writing

1/2 Credit

Grades 10-12

This elective is designed to aid the student in his/her creative expression, as well as delivery of one's own writing. The first quarter will focus on fiction. Students will read and evaluate the effectiveness of fiction of varying styles. They will write and workshop short stories to complete a final portfolio. The second quarter will focus on poetry. Students will learn poetic vocabulary, and read and compose poems of varying styles. Students will write and workshop each other's poetry to complete a final portfolio at the end of the quarter. Students will be expected to deliver their writing to an audience.

Health / Physical Education Department

Health

1/2 Credit

The emphasis on this course is self-responsibility and that choices made result in consequences. In line with the contemporary attention to individual and group health problems, the State Department of Education now mandates that all students have a minimum 1/2 credit in health education which must include the topics of stress management, suicide prevention, nutrition, drugs (including alcohol, tobacco, and steroids), and disease (including sexually transmitted diseases). The focus of this course will be for students to understand that health and wellness are lifelong and cumulative, and that knowledge translated into positive health practices can extend youthfulness and postpone aging. The course also stresses principles adaptable to living life to the fullest extent today, toward accepting oneself, associating harmoniously with others, and developing an awareness of our physical, social, mental, spiritual, and environmental responsibilities. This course will include individual health problems, as well as the health problems facing us as a society and how we can deal with them. Student participation in understanding the areas of health that affect them today and in the future is the major objective of this course.

Physical Education

1/2 Credit

New York State mandates that all students in high school must take physical education in order to fulfill the requirements for graduation. At St. Mary's, students must take two (2) physical education classes per cycle, for 40 weeks, each year. In lieu of Physical Education, Dance Class may be selected and will fulfill the Physical Education requirement.

Dance

1/2 Credit

This course will give students a well-rounded experience in Dance Study. It will include the history of dance, dance terminology, ballet, barre, basic tap, and exercises to facilitate students' balance, coordination, and agility. Dances popular in the '30s through the present will be studied. Participation is mandatory. This course may be taken in place of a physical education class. The option to participate in two show productions is offered.

Languages other than English Department

Spanish 1

1 Credit

Level 1 courses are designed to help students develop the skills of listening comprehension, reading, speaking, and writing as well as an understanding and appreciation of culture. Emphasis is on communicative proficiency. There is a local exam in June.

Note: All incoming Freshmen with previous language experience must complete the St. Mary's HS LOTE Placement Exam.

Spanish 2

1 Credit

Level 2 courses reinforce the skills and vocabulary taught in Level 1. Concentration is on further development of listening comprehension, conversation, culture, and increased reading and extended writings. There is continued emphasis on communicative proficiency. There is a local exam in June.

Prerequisite: Department approval. For incoming Freshmen, placement is contingent on performance on the St. Mary's LOTE Placement Exam.

Spanish 2 Honors

1 Credit

This course offers the student an opportunity to master the Spanish 2 materials at an accelerated pace. Emphasis is placed on the four proficiency skills: listening comprehension, conversation and presentation, reading and writing. Spontaneous conversational activities and advanced readings are an integral part of this course.

Prerequisite: Enrollment is by invitation of the Languages other than English Department. For incoming Freshmen, placement is contingent on performance on the St. Mary's LOTE Language Placement Exam.

Spanish 3

1 Credit

This course emphasizes advanced listening comprehension, extended reading, culture, composition, and speaking skills. Successful completion prepares students for both a locally-developed Checkpoint B exam and for upper-level study.

Prerequisite: Department approval. Successful completion of this course and passing the Check-point B exam is required for Regents Diploma with Advanced Designation candidates. .

Advanced Placement Spanish

1 Credit

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

Prerequisite: Completion of Spanish 3 and department approval

Mathematics Department

All Math students must have a TI-84 Plus Graphing Calculator

Algebra I Honors

1 Credit

Designed for students of average to above average ability in mathematics, this course is the first step in the Math curriculum. It will integrate topics from algebra and geometry such as elementary algebra, functions, basic concepts of statistics, and high school geometry (area, perimeter, volume, surface area, and polygons). Problem solving will be emphasized in all areas. The Algebra I (Common Core) Regents exam will be given in June of the freshmen year.

Prerequisite: Department recommendation

Algebra I

1 Credit

This slower-paced course is designed for students who have shown in their mathematics background or achievement a need for extra attention. It will integrate topics from algebra and geometry such as elementary algebra, functions, basic concepts of statistics, and high school geometry (area, perimeter, volume, surface area, and polygons).

Problem solving will be emphasized in all areas. The Algebra I (Common Core) Regents exam will be given in June of the freshmen year. This course will include a lab component.

Prerequisite: Department recommendation

Algebra I / Lab

No Credit

The lab component is designed as an extension of the Algebra I course for students who have shown in their mathematics background or achievement a need for extra attention. It focuses on enriching Algebra I concepts by designing lessons and activities to increase procedural fluency, problem solving skills, and comprehension of material likely to appear on the Algebra I (Common Core) Regents exam taken in June.

Prerequisite: Department recommendation

Geometry Honors

1 Credit

This course is the second step in the mathematics curriculum. It is designed for those students who have successfully completed Algebra I Honors. This course will build on topics covered in Algebra I Honors and extend those topics to provide a more in-depth study of Euclidean and analytic geometry. The Geometry (Common Core) Regents exam will be given in June.

Prerequisite: Department recommendation

Geometry

1 Credit

This slower-paced formalizes what students have previously learned about geometry, with a focus on reasoning and making mathematical arguments. It will include the study of Euclidean and analytic geometry, along with the geometry skills needed for standardized test questions. Students may (but are not required to) challenge the Geometry (Common Core) Regents exam in June.

Prerequisite: Department recommendation

Algebra II Honors

1 Credit

Designed for students of average to above average ability in mathematics, this course builds upon Algebra I Honors and Geometry Honors courses. Students will extend their understanding of the real number system to the complex number system. The course material includes functions, trigonometry, probability, and statistics. The Algebra II (Common Core) Regents exam will be given in June. SAT prep work is integrated into the curriculum.

Prerequisite: Department recommendation

Algebra II

1 Credit

This slower-paced course is designed for students to enhance the skills learned in Algebra I and Geometry. Students will extend their understanding of the real number system to the complex number system, as well as detailing functions, transformation geometry, trigonometry, probability, and statistics. Students may (but are not required to) challenge the Algebra II (Common Core) Regents exam in June. SAT prep work is integrated into the curriculum.

Prerequisite: Department recommendation

Math 4 Life

1 Credit

This course is designed to help students develop math literacy by reading and speaking about math. The curriculum is interactive, student-centered, and project-based, with a focus on math that will help them succeed outside of school. This course includes an emphasis on mathematical skills needed for general math electives in college, as well as standardized testing and mathematical knowledge utilized in everyday living.

Prerequisite: Department recommendation

Precalculus

1 Credit

This course is designed for students with competence and skill in mathematics. It integrates advanced algebra, analytic geometry, and trigonometry as an in-depth study of that material which is basic to an understanding of calculus.

Prerequisite: Department recommendation

Advanced Placement Calculus

1 Credit

Designed for advanced students, the course will study the differential and integral calculus of one real variable. Topics include differentiation and its applications and integration, techniques, and applications of the definite integral. Students will write the Advanced Placement Exam. The cost of the exam is approximately \$90.

Prerequisite: Successful completion of Precalculus and department approval

Advanced Placement Statistics

1 Credit

This course is equivalent to a one-semester, introductory, non-calculus based college course. An introductory statistics course is typically required for majors such as social sciences, health sciences, and business. Science, engineering, and mathematics majors usually take an upper-level calculus-based course in statistics, for which the AP Statistics course is an effective preparation. This course introduces students to major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. Students will write the Advanced Placement exam. The cost of the exam is approximately \$90. This course may be taken concurrently with Precalculus or AP Calculus.

Prerequisite: Successful completion of Algebra II Honors and department approval

Performing Arts/Music Department

Music 9

1/2 Credit

Music 9 is a Choral course. Students will begin to learn proper vocal technique and music literacy. In addition, students will listen to and evaluate their own performances and the performances of other choirs. The repertoire of the 9th Grade Chorus will provide students with a variety of music from around the world and throughout music history. Students will learn teamwork, discipline, and professionalism through public and in-school performances.

Music 10

1/2 Credit

Music 10 is a Choral course. Students will begin to learn proper vocal technique and music literacy. In addition, students will listen to and evaluate their own performances and the performances of other choirs. The repertoire of the 10th Grade Chorus will provide students with a variety of music from around the world and throughout music history. Students will learn teamwork, discipline, and professionalism through public and in-school performances.

11/12 Chorus

1/2 Credit

Students will learn proper vocal technique and music literacy. In addition, students will listen to and evaluate their own performances and the performances of other choirs. The repertoire of the 11th/12th Grade Chorus will provide students with a variety of music from around the world and throughout music history. Students will learn teamwork, discipline, and professionalism through public and in-school performances.

Intro to Keyboard and Guitar

1/2 Credit

This half-year elective is intended for students with little or no background in keyboard or guitar. The course is divided into equal sections for each instrument. Basic technique and musicianship skills will be taught including music reading, writing, and improvisation. Both group and individual instruction will be utilized.

Advanced Keyboard and Guitar

1/2 Credit

This half-year elective is intended for students with intermediate to advanced skills on keyboard and guitar. The course is divided into equal sections for each instrument. Advanced technique and musicianship skills will be taught including music reading, writing, and improvisation. Both group and individual instruction will be utilized. Students taking this course should have completed the Intro class.

Music Theory

1/2 Credit

11th & 12th Grade.

The emphasis of this course is on the fundamental rudiments of music. Students will develop the skills necessary to read, write, and understand music and music notation. Logical progression from individual pitches through scales, chords, and simple composition is covered. No prior knowledge is required. This course integrates the study of harmony, aural skills (pitch and rhythmic dictation and sight-reading), and keyboard applications of music theory. This is an academic course and has no performance requirements outside of class.

Rock & Roll: Popular Music in America

1/2 Credit

11th & 12th Grade.

This half-year course will focus on the role and sounds of popular music from the 1920s through the present day. Students will learn to identify and apply the elements of music to popular music. Students will also learn about the social role of popular music. Students will listen to music extensively, watch performances, study lyrics, and explore the production and marketing of popular music. This is a non-performance class that is open to all students.

Religious Studies Department

Religion 9

1 Credit

This year-long course is an overview of the Catholic faith. It touches on the Church's basic beliefs and practices. Topics include our faith's understanding of God, Jesus, the Holy Spirit, Sacred Scripture, prayer, liturgy, sacraments, and morality. A practical application of the Church's beliefs is explored. This is done by helping students to continue to develop a healthy Christian life-style including issues of personal identity, development, self-image, communication, family, friendship, sexuality, work, money, leisure, and life vocations. Students are required to complete a total of 10 hours (five each semester) of community service.

Old and New Testament

1 Credit

Students will recognize the story of the people of Israel as the root of their own faith story. This course introduces the student to a survey of major themes from the Bible such as sin, covenant, and redemption.

This course also places an emphasis on the connection between Hebrew and Christian Scriptures. Catholic Christian tradition is rooted in an understanding of the message of Jesus found in the New Testament, particularly the Gospels. Students will discover who Jesus is and what He means in each person's life. This program will foster a development of a personal, deeply relational experience of Jesus Christ. The history of the Church will be reflected on in the active and continuing presence of God.

Morality and Social Justice

1 Credit

This course will focus on the moral teachings of the Bible, conscience formation, processes used for moral decision making, and bioethics. Issues will be analyzed in the light of current debate and the teachings of the Church. Catholic and biblical teaching as a counter-cultural force is examined. Topics will include beginning of life issues such as fertilization, abortion, surrogacy, and cloning. End of life issues such as suicide, euthanasia, physician-assisted suicide, hospice, and living wills will be examined. Death and dying, as well as grief instruction, will also be presented. Morality in the business world and in technology will also be covered.

Students will understand the Church's teaching on Social Justice issues, including their sources rooted in the Old and New Testament plus Papal and Episcopal documents. This first-semester course will call students to discern discrepancies, where they exist, between social realities and Gospel values, and to develop strategies to make Gospel values operative. The students will develop a foundation for a social justice consciousness and learn how the Church addresses current social justice issues of our time.

We will also will focus on specific justice issues including the ethics of life, racism, poverty, environmental concerns, and the challenge of peace. An appreciation for diversity through culture, tradition, and other world religions will be explored.

Electives

Retreat Peer Ministry

1/4 Credit

Grade 12

This course focuses on the formation of students in preparing and conducting retreats. This course is twofold in scope: (1) to introduce the student to various forms of spiritual and liturgical experiences; and (2) to develop leadership, organizational, and planning skills. This course will meet as part of the 12th grade religion course.

Philosophy and Catholic Culture

1/2 Credit

Grade 10-12

This course will begin with the Greeks, Aristotle, Plato, and Socrates, placing the emphasis on the predominant thinkers of Christian thought, namely, Thomas Aquinas, Augustine, Maritan, and Courtney-Murray. If time permits, some consideration will be given to Avery Cardinal Dulles. The focus will be driven by historical views as influencing Catholic Theology.

Science Department

Earth Science A – Regents / Lab

1 Credit

Grade 9

This course presents the principles necessary to develop an up-to-date story of the earth as a planet and its environment in space. Factors which have shaped the earth in the past and their relationship to the current processes of change are discussed. A number of basic concepts in the Earth Sciences are presented and interrelated. A laboratory requirement is part of this course. Students are required to take the Regents exam.

Prerequisite: Enrollment in Algebra I Honors

Earth Science / Lab

1 Credit

Grade 9

This course covers the same topics as Earth Science A, but the Regents Exam is not required. A laboratory requirement is part of this course.

Prerequisite: Enrollment in Algebra I

Living Environment (Biology) A – Regents / Lab

1 Credit

Living Environment (Biology) B – Regents / Lab

1 Credit

This is a course of study designed to create an understanding of complex interrelationships between living organisms and among living systems. Major topics include concepts of life, biochemistry, comparative anatomy of plants and animals, human body systems, genetics, evolution, and ecology. Each unit is enriched with hands-on laboratory experiences offering greater conceptualization of the material. Students are required to take the Regents exam.

Prerequisite: Department recommendation

STEAM

1/4 Credit

All sophomore students are required to participate in and successfully complete at least two STEAM Challenges. Should a student fail to complete a STEAM Challenge, that student will not receive credit for the STEAM Challenge and will have to complete another STEAM Challenge successfully in order to receive STEAM credit. Criteria for grading each project will be shared at the beginning of the project and may include submission of a brief background research, project proposal, project design and construction, project performance, and final presentation. The project must meet the minimum requirements as described in the project description.

Prerequisite: Mandatory participation for members of grade 10

Chemistry – General / Lab

1 Credit

This course presents an introduction to chemistry. Major topics include atomic theory, periodicity of the elements, chemical bonding, equation manipulation, simple organic chemistry, and nuclear chemistry. A laboratory experience is a part of this course.

Prerequisite: Successful completion of Geometry, one Regents science exam, and department recommendation

Chemistry – Regents / Lab

1 Credit

This course provides a thorough introduction to general chemistry. It includes an up-to-date treatment of modern chemical theory enriched by historical background and development. Thus, it reveals the changing nature of chemistry as an evolving and expanding science. Topics included are atomic structure, periodicity of the elements, chemical bonding, kinetic theory, reaction rates and chemical equilibrium, and organic and nuclear chemistry. The laboratory portion of the course includes both quantitative and qualitative methods of analysis.

Prerequisite: Successful completion of Geometry Honors, the Geometry Regents exam, one Regents science exam, and department recommendation

Chemistry – Regents Honors / Lab

1 Credit

Chemistry Honors is a Regents course that goes beyond the material required in the core curriculum. Topics go into much greater depth and detail to provide the Honors student with a deeper understanding of the science of Chemistry. Major research work is expected on the part of the student beyond the normal course work. The laboratory portion of the course includes both quantitative and qualitative methods of analysis.

Prerequisite: Successful completion of Geometry Honors, the Geometry Regents exam, two Regents science exams, and department recommendation

Forensic Science / Lab

1 Credit

This class is intended to be a hands-on course with the majority of class time spent in the lab utilizing forensic techniques. The major areas of course work include problems with eyewitness testimony, fingerprints, hair, and fiber and blood spatter analysis.

Prerequisite: Regents Chemistry and department recommendation

Advanced Placement Chemistry / Lab

1 Credit

This course is designed to be the equivalent of a general chemistry course that would be taken by a first-year college student. Structured around the “Six Big Ideas” determined by the College Board, the course works to develop math skills and problem-solving through working with complex and difficult chemistry concepts. This course also involves a laboratory component that helps to develop problem-solving skills by the inclusion of inquiry-based laboratory experiments where students must develop and test their own procedure to solve a scientific problem. Students will

have the opportunity to take the Advanced Placement Chemistry exam in May. The cost of the exam is approximately \$90.

Prerequisite: Completed Chemistry Regents or Honors and Algebra II Honors, at least 85 on Regents Chemistry Exam, and/or Department Recommendation.

Advanced Placement Biology / Lab

1 Credit

Grade 12

Advanced Placement Biology is a college-level course open to seniors who have achieved above-average grades in science each previous year, over a three-year period. Students who select this course should be college bound and possess analytical skills. The Advanced Placement Biology Course is designed to be the equivalent of a college introductory biology course with labs. The curriculum includes these general topics: molecules and cells, genetics and evolution, organisms and populations, anatomy, and physiology. A research project is required each semester. Students will have the opportunity to take the Advanced Placement Biology exam in May. The cost of the exam is approximately \$90.

Prerequisite: Based on department recommendation and/or approval.

Environmental Science

1 Credit

As inhabitants of the Earth, it is our responsibility to use Earth's resources responsibly and to minimize the impact we have on the planet. In this course, students will examine some of the issues surrounding humans' impact on the environment, possible solutions to reducing the impact, and the social, economic, and political ramifications of these actions. Additionally, students will explore their personal environment and discover some of the dangers that they face in their everyday life and ways to reduce the risk from these hazards. This course is designed to be a senior elective for those students interested in science beyond the required courses.

Prerequisite: Chemistry (Regents or General) and department recommendation

Physics / Lab

1 Credit

The study of Physics is concerned with the relationship between matter and energy. This course is both qualitative and quantitative in nature. Topics include mechanics, energy, electricity and magnetism, wave phenomenon, and modern physics. The relevancy of the various topics is reinforced by the laboratory portion of the course. The Physics Regents Exam is not required.

Prerequisite: Successful completion of Algebra II Honors, Chemistry-Regents, or Chemistry-Regents Honors and department recommendation

Social Studies

Global Studies 9

1 Credit

Global Studies 9 provides a chronological study of the world from prehistoric times to Absolutism in Europe. The grade 9 curriculum focuses on important historical, geographic, political, and economic characteristics of the societies that developed in each region of the world. Students study the six major themes of Global History: cultural diffusion, trade, migrations, belief systems, conflict, and the establishment of multi-regional empires as well as the major events and turning points in history. These themes are supported by the emphasis on developing interpretation skills through the use of primary and secondary sources, political cartoons, map reading, and chart and graph

interpretations in relation to the thematic essay and document-based question. The final assessment is a teacher-generated exam.

Global Studies 10

1 Credit

In grade 10 Social Studies, students will examine Global History and Geography, and complete the year by taking a New York State Regents Exam. This one-year sequence is arranged chronologically beginning with the world in 1750 marked by powerful European empires, coastal African kingdoms, and growing European maritime empires up to the contemporary issues, such as the tensions between traditional cultures and modernization.

Advanced Placement World History I

1 Credit

This course is designed as a pre-AP World History course, covering the New York State Global Studies Curriculum in a very in-depth and extensive manner. The course will be a bridge from normal high school course work to a more complex “college-level” study. AP World History I covers the history of human beings chronologically from the Paleolithic Age through current times. This course includes a study of every major area, culture, and religion throughout history. Students will take the NYS Regents Examination at the end of sophomore year.

Prerequisite: Department recommendation

Advanced Placement World History II

1 Credit

Grade 10

Advanced Placement World History is a college-level course open to sophomores that have achieved above-average grades in Social Studies and English during their freshman year. This course, designed for students who are college bound and possess a good command of reading and writing, will develop a greater understanding of the evolution of global processes and contacts in different types of human societies. Students will study the cultural, economic, political, and social developments that play a fundamental role in shaping the world in which they live. The ultimate goal of the course will be a mastery of the information and preparedness for the college-level examination. This course includes extensive reading and writing assignments. Students will take the A.P. exam in May of their sophomore year and the NYS Global Studies Regents in June. Students who pass the A.P. exam may be eligible for college credits. The cost of the A.P. exam is approximately \$90.

Prerequisite: Based on department recommendation and/or approval.

U.S. History & Government – Regents

1 Credit

Grade 11

This course reviews the development of the United States. It will include a chronological survey of United States history in general, but emphasis will be on the United States as a transitional and fully developed industrial nation. Constitutional and legal issues will be explored in depth, as will the problems of a dynamic and industrial society in an increasingly complex and technology-oriented world. This course serves as a historical foundation for the senior courses. All students will take the U.S. History & Government Regents exam in June.

Advanced Placement United States History

1 Credit

Grades 11-12

Advanced Placement United States History is a college-level course open to juniors and seniors who have achieved above-average grades in Social Studies and English. This course is designed for students who are college bound and possess a good command of reading and writing skills. A term paper is required each semester. Students must

take the A.P. exam in May, and juniors will take the U.S. History & Government Regents in June. The cost of the A.P. exam is approximately \$90. Students who pass the A.P. exam may be eligible for college credit.

Prerequisite: Based on department recommendation and/or approval.

Personal Finance

1/2 Credit

Grade 12 Only

This required course is taught every other day for a full year. It deals with the basic concepts necessary to manage one's personal financial dealings in a modern economy. The course will include: banking, saving and spending, retirement planning, credit cards, student loans, buying vs. leasing, and budgeting as it relates to cars and housing, insurances, taxes, and investing. The course will mix both academic study plus hands-on simulations of real family financial situations.

Participation in Government

1/2 Credit

Grade 12 Only

This required one-semester course emphasizes the interaction between citizens and government at all levels: local, state, and federal. The course encourages students to analyze public policy, issues and problems, decision making, and implementation of proposed changes. A participatory project is required.

Advanced Placement American Government & Politics

1 Credit

Grade 12 Only

This is a college introductory course designed to give students a critical perspective of government and politics in the United States. This course fulfills the New York State Participation in Government requirement. Students will discuss the various institutions, groups, beliefs, and ideas that make up the American political reality. Students will be required to produce a mock campaign and volunteer at a local campaign office. Students must take the A.P. exam in May. The cost of the A.P. exam is approximately \$90. Students who pass the A.P. exam may be eligible for college credit.

Prerequisite: Based on department recommendation and/or approval.

Leadership Skills

1/2 Credit

Grade 12 Only

This hands-on class will teach the skills necessary to be a leader in both small group and large organizational settings. Students will study actual skills including time management, goal setting, independence, image creation, networking, negotiating, event planning and management, conflict resolution, critical thinking, problem solving, and leadership by example. Classroom activities will include frequent hands-on projects that put to use the skills above and to teach that how individuals treat people is the core of good leadership.

Public Speaking

1/2 Credit

Grade 11 Only

This required class will help students develop or hone their abilities to speak in front of people, as is often required in college and career. Through a series of actual speaking activities, students will develop the skills of crafting and giving stand-up presentations, reading aloud, interviewing, group discussions, presentation software (PowerPoint, Google Slides, Prezi), and answering extemporaneous questions.

Electives

History through Film

1/2 Credit

Grades 11-12

Just how accurate are those films when compared to actual history? This half-year course looks at some popular films based on historical events and compares the director's slant with what actually happened. The class will include viewing of films along with study of history to make complete comparison. *Because of the nature of some of these films, parental permission is required to view films.*

Psychology

1/2 Credit

Grade 12 Only

This course reviews the eclectic approach to the study of human behavior. The five basic theories — neurobiological, behavioral, psychoanalytic, cognitive, and phenomenological — are reviewed for the advantages and applied to the study of development, learning and memory, personality, and abnormal behavior. The course also provides an opportunity for personal assessment. Students who wish may also take advantage of the A.P. Psychology exam in May (the cost of the A.P. exam is approximately \$90).

Introduction to Criminal Justice

1/2 Credit

Grades 11-12

This Social Studies elective is a basic law course designed to give students a better understanding of the principles, procedures, and actual practices of the U.S. criminal system. Topics in this one-semester course will include the nature and causes of criminal behavior; the qualifications for, characteristics of, and problems connected with police work; due process as it relates to police investigations, arrests, court and legal procedures; and sentencing and prison life. The many controversies connected to the above items are explored. The course is augmented by an array of guest speakers who are professionals in the field, a ride-along program, and a field trip to a correctional facility.