

# St. Mary's High School



*A New Year is Dawning!*

## ***2016-17 Course Description Catalog***

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*Preparing young men and women for college and beyond*

## **New This Year:**

**For each elective, we've included the name of the contact teacher in case you have any questions about these classes and a list career opportunities related to the class.**

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## **Art Department**

### *Possible Careers*

### **Advertising & Design** (Mr. Herr, Ms. Ruhland)

*1/2 Credit*

This course is for persons interested in design. Students will create things such as play programs, book covers, advertisements for products, and much more. The primary focus will be using the computer and Adobe Photoshop to create advertising and marketing-style projects. Students may also use other media such as pencil, colored pencils, markers, paint, and digital photography.

*Prerequisite: Digital Art*

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### **Ceramics & Sculpture** (Ms. Hillery, Ms. Ruhland)

*1/2 Credit*

This course gives students the opportunity to learn basic skills using clay and glaze materials and to foster those skills to develop creative thinking. Hand-building techniques, practice on the potter's wheel, and working with a variety of clay surface designs will be explored. Also, insights into cultural and ancient uses of ceramic materials will be introduced. Attention will be given to developing awareness of the aesthetic and utilitarian roles of clay as a design material. The elements and principles of design will be emphasized in planning and creating ceramic forms which utilize the techniques, processes, and materials of ceramic design.

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### **Advanced Ceramics** (Ms. Hillery, Ms. Ruhland)

*1/2 Credit*

This course is designed to increase knowledge and production of functional and decorative pottery, to develop an understanding of the history and aesthetics of ceramic design, and to further develop technical skills necessary for the successful formulation of glazes, preparation of clay bodies, and firing of ceramic wares.

*Prerequisite: Ceramics & Sculpture*

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### **Digital Art** (Ms. Hillery, Mr. Herr, Ms. Ruhland)

*1/2 Credit*

This course is designed to develop both technical and artistic skills using computers as a creative tool to generate images. Digital art created in this course will be applied to electronic slide shows, web pages, and hard-copy prints. Finished projects will demonstrate understanding of both the technical and aesthetic implications of the medium. The final objective will be to generate a digital portfolio that can be viewed both electronically (web and/or CD) and as hard-copy prints. Students will learn about drawing, painting, animation, and multimedia applications with a combination of lecture, demonstration, and hands-on experience. They will also gain exposure to ethical concerns and copyright issues.

*Prerequisite: Computer Foundations for High School*

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## Digital Photography (Ms. Hillery, Mr. Herr, Ms. Ruhland)

1/2 Credit

Students will learn the basics of photographic composition and lighting, using a digital camera, and preparing a digital darkroom. Students will also learn basic color theory and the fundamentals of image processing. This course is designed for the student who has no background in photography. Students will use Adobe Photoshop for manipulation of photographs. After completing this course, students will be able to successfully use a digital camera to make images; explain and apply basic photographic compositions to their images; explain and apply the various characteristics of light in making their images; explain and apply the fundamental tools of image processing to their work; explain the hardware and software requirements for a digital darkroom and analyze their systems in terms of those requirements; explain how a digital camera works; and explain how they can use their photographs.

*Requirement: any digital camera of 4 megapixel or more.*

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## Drawing & Painting (Ms. Hillery, Ms. Ruhland)

1/2 Credit

This course introduces the student to fundamental techniques of drawing and painting through the study of art elements and principles and through direct experience with different drawing and painting materials. Students also study the works of various artists and art movements throughout history. Students read and write about different aesthetic theories of art to help them learn how to analyze and appreciate works of art.

*Open to all students.*

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## 2D Studio in Art (Ms. Hillery, Ms. Ruhland)

1/2 Credit

This course is an introduction to 2D principles of design and drawing. Students will build an art foundation that specifically looks at the elements and principles of art, alongside the rules of composition. Students will explore a variety of materials, including charcoal, color pencil, paint, printmaking, and mixed media. This is a comprehensive study of a variety of 2D styles and materials and is designed for beginners.

*\* This course and 3D Studio in Art may be taken in any order. It is a recommended course for freshmen or beginner artists and has no prerequisites.*

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## 3D Studio in Art (Ms. Hillery, Ms. Ruhland)

1/2 Credit

This course is an introduction to 3D principles of design and sculpture. Students will build an art foundation that specifically explores 3D principles and design structures. Students will explore a variety of materials, including clay, plaster, paper mache, and sandstone. This is a comprehensive study of a variety of 3D styles and materials and is designed for beginners.

*\* This course and 2D Studio in Art may be taken in any order. It is a recommended course for freshmen or beginner artists and has no prerequisites.*

## **Portfolio Development Seminar (Ms. Hillery, Ms. Ruhland)**

*1/2 Credit*

*Grades 11-12; Fall semester*

Interested in a career in art? Thinking about subjects like graphic design, animation, or drawing and painting as a college major? This is the perfect class for you. This course is student driven and allows you time to build an art portfolio customized to your personality, artistic style, and preferred artistic medium. This is an upper level art course where you will not only create art and practice life drawing, but also discuss art history, explore current careers in art, and learn how to critically look and talk about art. This course is offered in the fall and is only for Juniors and Seniors that have taken two or more art courses.

# **Business & Computer Science Department**

## **Business**

### **Accounting (Mr. Meyerhofer)**

*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.

*Accountant (Financial, Cost, Managerial, Budget, Tax), Auditor, Controller, Chief Financial Officer*

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### **Business Law (Mr. Meyerhofer)**

*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.

*Business Lawyers, Paralegals, Finance Analysts, Entrepreneurs*

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### **Leadership Skills (Mr. Herr)**

*1/2 Credit*

*Grades 10-12*

The Leadership course, open to sophomores, juniors, and seniors, endeavors to teach or support organizational or leadership skills through the planning of school-related events. The course will address brainstorming, time management, presentation, organization, event planning, evaluation, and follow-up, along with other leadership skills. Students will be evaluated on classroom work, as well as on the successful planning and implementation of school-related event(s).

*All Career Fields*

## *Possible Careers*

### **Marketing (Mr. Herr)**

*1/2 Credit*

*Grades 10-12*

Content for this course includes selected entrepreneurial skills as well as those necessary to the management, merchandising, and marketing functions inherent in the operation of a business. The course will help prepare students for college-level business programs and introduce them to an area of business with which they may be familiar or wish to pursue upon graduation.

*Advertising, Public Relations,  
Market Research,  
Product Management,  
Retailing*

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### **Personal Finance (Mr. Herr)**

*1/2 Credit*

*Recommended for Grades 11-12*

Do you want to learn how to wisely save and spend your money? If so, this course is for you. This is your opportunity to learn about earning money, budgeting, loans (including college loans), managing a checking account and a credit card, and doing comparison shopping. Prepare for your adult life by learning about insurance of all types, investing, taxes, buying a house, and saving for retirement.

*Personal skills needed by all*

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## **Computer Science**

### **Computer Foundations for High School**

*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. The physical components of the computer will be discovered. A practical knowledge of the Windows operating system and graphical user interface (GUI) 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.

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### **Computer Science (Mr. Meyerhofer)**

*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 course will have the option of taking AP Computer Science Principles as an independent study class.

*Recommendation for students in grade 10-12*

*Computer Programmer;  
Computer Systems Analyst or  
Engineer; Network Systems,  
Database Administrator,  
Business Intelligence Analyst,  
Web Developer; and many  
more*

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### **Internet and Web Page Development (Mr. Herr, Mr. Meyerhofer)**

*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: Computer Foundations for High School and Digital Art*

*Website Developer or  
Administrator; Entrepreneurs*

### 3D Computer Automated Design I (Mr. Meyerhofer)

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.

### Possible Careers

CAD designer in many fields,  
Product Developer,  
Model Maker; Manufacturing  
Engineer; Architectural Design,  
Interior/Exterior Design

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### 3D Computer Automated Design II (Mr. Meyerhofer)

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*

CAD designer in many fields,  
Product Developer,  
Model Maker; Manufacturing  
Engineer; Architectural Design,  
Interior/Exterior Design

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### Advanced Placement Computer Science Principles (Mr. Meyerhofer)

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*

Computer Programmer;  
Computer Systems Analyst or  
Engineer; Network Systems,  
Database Administrator,  
Business Intelligence Analyst,  
Web Developer; and many  
more

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### 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*

Computer Programmer;  
Computer Systems Analyst or  
Engineer; Network Systems,  
Database Administrator,  
Business Intelligence Analyst,  
Web Developer; and many  
more

## 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. Drama includes a Shakespearean play. A research paper is required. Assignments include reading, compositions, reports, and creative projects. Summer reading is mandatory.

junior and senior year Advanced Placement courses in English. Completion of summer reading and a research paper are requirements of the course.

*Prerequisite: Department recommendation*

### 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

### Lancer 101

No Credit

Grade 9

Lancer 101 is a *required* course for all Freshmen. It is designed to help students make the successful academic and social transition to high school. This program provides instruction and practical exercises in listening skills, goal setting, organizational skills, time management, note taking, anxiety, studying, and test taking. The Study Skills grade is incorporated into the English 9 course. This class is offered during the first quarter.

## Reading Development

*1/2 Credit*

*Grade 9*

Reading Development is a lab-type course that permits each student to progress at his/her own rate. Course material includes individualized comprehension and vocabulary exercises tailored to fit each student's level; reading in content areas using textbooks; and reading various types of literature and the newspaper. Recreational reading is also encouraged. This course is required for some ninth graders, based upon results of tests given in eighth grade. In determining the grade for this course, the student's effort and degree of improvement are heavily considered. This is a one-semester course.

## English 10

*1 Credit*

The second year of English focuses on a study of world writers. The study involves a deepening 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. A research paper is required. Completion of summer reading is a requirement of the course.

*Prerequisite: Successful completion of English 9*

## English 10 Honors

*1 Credit*

This course in English focuses on a study of world writers. 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. A research paper is a course requirement. 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. Research techniques are an integral part of the course work, and a research paper is required. Other types of writing, such as narrative and persuasion, 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: In order to take the course, the junior must have mastered the pre-AP work in English 10 Honors.*

*Note – English 11 students will 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

*1 Credit*

The goal of the English 12 course is to expose students to the riches of British Literature. The course begins with the oldest-known poem in the English language, "Beowulf". Major British authors are studied in detail, and students will be exposed to all genres of literature. Projects include a research paper (a course requirement) and poetry writing. 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 11 Honors. The student who selects this course should be college-bound and have a good command of reading, writing, and discussion skills. 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. 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. Students also take the New York State Regents Exam in

English in January. A summer reading assignment, including written paper, is due upon return in the fall; completion of this assignment is a course requirement and will be incorporated into the first marking period grade.

*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.*

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### Electives

### *Possible Careers*

#### **Creative Writing (Mr. Herr, Mrs. Richardson)**

##### *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 interpret 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.

*English teacher,  
editor, writer*

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#### **Modern Media: Journalism, Social Media, and Beyond**

*(Mr. Herr, Mrs. Richardson)*

##### *1/2 Credit*

##### *Grades 11-12*

This is a half-year course designed to introduce students and allow them the opportunity to gain some experience in several disciplines of the communications world. This course will cover the following topics: Radio and Television Broadcasting, Print Journalism, Print Publication Design, Internet Communications, and Event Publicity. Students will be divided into teams that will work on different projects simultaneously, with groups rotating between topics. As a group returns to do a topic again, the students will take up different jobs than the first time around. The entire class will meet once a week in "production meetings" to discuss the projects each group is working on. This class could include field trips to various communication organizations.

*Radio, television,  
public relations,  
editor, writer*

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#### **Public Speaking (Mr. Herr, Mrs. Richardson)**

##### *1/2 Credit*

##### *Grades 11-12*

This single-semester elective provides the student with the opportunity to learn, through experience, the basics of public speaking. From short 30-second oral presentations to full debates, this hands-on course will help the student build self-confidence and empower the student to speak before any group.

*All careers, but specifically  
for business, education,  
and public relations*



# 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

## French 1

## 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.*

## French 2

## 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.*

## French 3/4 A

*1 Credit each*

This course focuses on communication in the French language as well as cultural understanding. Students will be introduced to new vocabulary and challenged with advanced grammar. This class will focus on the history of France.

*Prerequisite: Department approval. French 3 students:*

*Successful completion of this course and passing the Checkpoint B exam is required for Regents Diploma with Advanced Designation candidates. French 4 students will complete a final exit project.*

## French 3/4 B

*1 Credit each*

This course focuses on communication in the French language as well as cultural understanding. Students will be introduced to new vocabulary and challenged with advanced grammar. This class will also include a concentration in French literature.

*Prerequisite: Department approval. French 3 students:*

*Successful completion of this course and passing the Checkpoint B exam is required for Regents Diploma with Advanced Designation candidates. French 4 students will complete a final exit project.*

## Spanish 4

*1 Credit*

This is an advanced course for students interested in continuing the study of the language by putting to use those skills learned in levels 1 through 3. It offers students exposure to culture, history, and civilization through short stories, poetry and literary passages of a variety of authors, as well as units on film, art, and music. Local exam or exit project will be completed in June.

*Prerequisite: Department approval*

### Electives

### *Possible Careers*

## Hispanic History & Culture through Media *(Mrs. Tandy)*

*1/2 Credit*

This course explores social, cultural, and political issues through award-winning films from many different areas of the Spanish-speaking world. Topics will be chosen from a list based on the interests of the group in September. Due to the nature of some of these films, parental permission is required to view them.

*Prerequisite: Department approval*

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## Latin – An Introduction *(Mr. Fay, Mrs. Tandy)*

*1/2 Credit*

As part of the Philosophy in Catholic Culture Curriculum, Classical Latin is offered as a one-semester course. Students will learn Latin through ancient, time-honored, classical language approaches which include repetition, parsing written composition, and listening exercises. These techniques, combined with a modern multimedia approach, will give the student a background in learning grammar, syntax, and vocabulary.

# Mathematics Department

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

## Algebra I / Lab

*1 Credit School*

This slower-paced course is designed for students who have shown in their mathematics background or achievement a need for extra attention. The course will integrate topics from Algebra and Geometry such as elementary Algebra, basic concepts of statistics, and high school Geometry. Problem solving will be emphasized in all areas. Students will receive additional instruction in math throughout the year.

*Prerequisite: Department recommendation*

## Algebra IA

*1 Credit*

Designed for pupils 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, basic concepts of statistics, and high school geometry (area, perimeter, volume, surface area, and polygons). Problem solving will be emphasized in all areas. The Regents Common Core in Algebra I exam will be given in June of the freshman year.

*Prerequisite: Department recommendation*

## Geometry / Lab

*1 Credit School*

This is a continuation of Algebra I. One semester will be spent completing the Algebra curriculum and reviewing for the Algebra Regents examination. The other semester will include basic Geometry topics, emphasizing topics tested on the SAT. The Regents Exam in Algebra I (Common Core) will be given in January. *This course will include a lab component.*

*Prerequisite: Department recommendation*

## Geometry A

*1 Credit*

This course is the second step in the mathematics curriculum. It is designed for those students who have successfully completed Algebra IA. This course will build on topics covered in Algebra IA 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 Honors

*1 Credit*

An accelerated course that covers the topics presented in Geometry A and additional enrichment topics. The Geometry (Common Core) Regents Exam will be given in June.

*Prerequisite: Department recommendation*

## Algebra II

*1 Credit*

This slowed-paced course is designed for students to enhance their Algebra skills. Students will extend their understanding of the real number system to the complex number system. The course material includes functions, transformation geometry, sequences and series, probability, and statistics.

*Prerequisite: Department recommendation*

## Algebra IIA / Lab

*1 Credit*

This course builds upon the New York State Algebra I and Geometry courses. Students will extend their understanding of the real number system to the complex number system. The course material includes functions, probability, statistics, and trigonometry. The Algebra II (Common Core) Regents Exam will be given in June. *This course will include a lab component.*

*Prerequisite: Department recommendation*

## Algebra II Honors

*1 Credit*

This is an accelerated and expanded version of the regular Algebra II class and is designed for those students who have demonstrated both competence and interest in mathematics. The content of the course will cover all the topics included in Algebra II as well as additional enrichment topics. The Algebra II (Common Core) Regents Exam will be given in June.

*Prerequisite: Department recommendation*

## Math IV B

*1 Credit*

This course will strengthen algebraic skills needed in the study of trigonometry. Topics include logarithms and trigonometry, including graphing, equations, and the solution of the triangle.

*Prerequisite: Department recommendation*

## Precalculus

*1 Credit*

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

*Prerequisite: Department recommendation*

## Precalculus Honors

*1 Credit*

This is an accelerated and expanded version of the regular Precalculus course and is designed for those students who have demonstrated both competence and interest in mathematics. The content of the course covers all of the topics of Precalculus, as well as additional enrichment topics.

*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: Department approval only*

## Advanced Placement Statistics

*1 Credit*

*Grades 11-12*

Students who wish to complete studies equivalent to a one-semester, introductory, non-calculus based college course should enroll in AP Statistics. An introductory statistics course, similar to the AL 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. The purpose of the AP Statistics course is to introduce 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 in this course will take the Advanced Placement examination. The cost of the exam is approximately \$90. This course may be taken concurrently with Pre-Calculus, Pre-Calculus Honors, or AP Calculus.

*Prerequisite: Successful completion of Algebra IIA or Honors.*

*Based on department recommendation and/or approval.*

## Gifted Math Program

*1 Credit*

St. Mary's High School participates in the Gifted Mathematics Program offered at the State University of New York at Buffalo. For more information about the program, go to [giftedmath.buffalo.edu](http://giftedmath.buffalo.edu).

# Music / Performing Arts

*Possible Careers*

## Introduction to Keyboard & Guitar (Mr. Kaminski, Ms. Ruhland)

*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 10-week 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.

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## Advanced Keyboard & Guitar (Mr. Kaminski, Ms. Ruhland)

*1/2 Credit*

A continuation of the Introduction to Keyboard & Guitar class, this half-year elective gives students the opportunity to take their skills to a higher level. Students will be introduced to more challenging repertoire and will continue in technical progress and reading abilities.

*Prerequisite: Introduction to Keyboard & Guitar or permission of instructor with demonstrated ability.*

**Introduction to Performing Arts (Ms. Ruhland)***1/2 Credit*

Introduction to Performing Arts is an overview course that is designed to give students an understanding and appreciation of the performing arts industry. Students will study basic theatrical and dance terminology, elements of a script, basic stage directions, theater architecture, the history of theater and dance, basic performance and production techniques, and job opportunities in the performing arts industry.

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**Lights, Camera, Dance (Ms. Ruhland)***1/2 Credit*

This course will introduce students to the fundamentals of dance as a theatre art, including analysis and interpretation of musicals, acting exercises, dance productions. Students will watch various types of performances, explore the origin and the history of dance and participate in several physical dance techniques. Students will also explore the physical make-up of choreographing routines, including staging and costumes, as well as view several filmed and/or live stage performances. Final assessments will be based on cumulative portfolios as well as a final project/performance which will take place during class. Open to all students.

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**Music Theory I (Mr. Kaminski, Ms. Ruhland)***1/2 Credit*

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 is an academic course and has no performance requirements outside of the class. This is an essential course for students who are considering majoring in music.

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**Music Theory II (Mr. Kaminski, Ms. Ruhland)***1/2 Credit*

A continuation of Music Theory I, this course is designed for musically talented students who wish to take their musical skills to the next level. It is expected that the entering students is already able to read music. The course will include the study of all aspects of music theory, including notation, analysis, sight-singing, composition, and harmony. This is an academic course and has no performance outside of class. This class will prepare music students for college-level musical study.

*Prerequisite: Music Theory I or permission of instructor with demonstrated ability.*

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**Rock & Roll: Popular Music in America (Mr. Kaminski, Ms. Ruhland)***1/2 Credit*

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.

## **Mixed Chorus (Mr. Kaminski, Ms. Ruhland)**

*1/2 Credit*

This half-year course is an excellent introduction to fine arts performance. This class teaches musicianship and choral skills through rehearsal in a large-group choral setting. Students will perform a variety of choral music including musical theater repertoire, popular songs, and significant pieces from music history. The Mixed Chorus will prepare for school concerts on the winter and spring. Students will also have the opportunity to perform at liturgies, for community events, and at festivals for Erie County and the New York State School Music Association.

# **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 Testament – 10th Grade fall semester**

*1/2 Credit*

The 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. Students are required to complete 10 hours of community service each semester.

## **New Testament – 10th Grade spring semester**

*1/2 Credit*

This course 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. Students are required to complete 10 hours of community service each semester.

## **Morality – 11th Grade fall semester**

*1/2 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 are required to complete 15 hours of community service each semester.

## **Christian Family Living & Vocations – 11th Grade spring semester**

*1/2 Credit*

This course will deal with the importance of vocations. Single life, married life, and religious life will be examined, along with Sacramental study of marriage as a covenant, including the significance of relationships based on mutual love, respect, forgiveness, and concern. Other issues include the Church's teaching on chastity and abstinence. The Church's teachings in regards to love between marriage partners as well as parental responsibilities and cherishing of children are considered. Students are required to complete 15 hours of community service each semester.

## Social Justice I – 12th Grade fall semester

*1/2 Credit*

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. Students are required to complete 20 hours of community service each semester.

## Social Justice II – 12th Grade fall semester

*1/2 Credit*

This semester 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. Students are required to complete 20 hours of community service each semester.

## Electives

### Retreat Peer Ministry (*Mrs. Powers*)

*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.

## *Possible Careers*

*Religious Life, Deacons,  
Church Lay Positions*

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### Philosophy and Catholic Culture (*Mr. Fay, Mrs. Powers*)

*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 IA or higher*

## Earth Science B / 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 H or Geometry A, 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 H or Geometry A, 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 IIA or 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 – General / Lab

*1 Credit*

This course focuses on the practical applications of physics. Laboratory experience will be included. Topics to be covered will include electricity, magnetism, motion, light, and nuclear physics.

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

# Social Studies

## Global Studies 9 & 10 – Regents

*1 Credit / year*

This is a two-year Social Studies program for grades 9 and 10. This program of learning is in the following areas: South, Southeast, and East Asia, Africa south of the Sahara, the Middle East, Eastern and Western Europe, and Latin and South America. The social sciences of geography, history, economics, political science, and sociology are woven together to enable the students to develop cultural understanding. All students will take the Global Studies Regents Exam at the end of their sophomore year.

## Global Studies 9 Honors

*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. Global Studies 9 Honors 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

*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.*

## Introduction to Economics

*1/2 Credit*

*Grade 12 Only*

This required one-semester course deals with the basic concepts and principles of economics, the major elements of economic systems, and the roles of various components of these systems, including the consumer, business, labor, agriculture, and government. The major focus is on the economy of the United States, but attention will be given to the world economy as a whole and to other economic systems. There will be an emphasis on economic decision-making at all levels through the course.

## 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. *Please note: Students MUST take the Intro to Economics online course over the summer; more information is available from Social Studies Department.*

*Prerequisite: Based on department recommendation and/or approval.*

**History through Film** *(Mrs. Connelly, Mr. Junik)**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.*

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**American Pop Culture** *(Mrs. Connelly, Mr. Ard, Mr. Junik)**1/2 Credit**Grades 12*

This course will allow students to have a greater look at American History in the recent decades. In this course, students will discover the different political, economic, social, and cultural movements of each decade and how it affected American life. Topics discussed will include the Korean War; McCarthyism; Civil Rights Movement; the Kennedy era; Vietnam; Revolt of the Youth; Nixon and Watergate; the administrations of Presidents Carter, Reagan, and Bush; Terrorism; and the Gulf Crisis.

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**Psychology** *(Mrs. Connelly, Mr. Junik)**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).

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**Introduction to Criminal Justice** *(Mrs. Connelly, Mr. Ard, Mr. Junik)**1/2 Credit**Grade 12 Only*

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.

# Course Credit Graduation Requirements 2016-17

Students must earn a minimum of 28 credits, which includes the minimum requirements for each subject area, as listed below.

- English – 4
- Social Studies – 4
- Math – 4
- Science – 3
- Religion – 4
- Art/Music – 1
- Health – ½
- Computers – ½
- Physical Education – 2 (½ credit per year)
- Foreign Language – 2 for Regents diploma;  
3 for Advanced Regents diploma

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## Diploma Requirements

In addition to meeting the course credit requirements listed above, graduation requirements also include passing specified New York State Regents exams. Each student will earn one of the following diplomas, as described below:

### Regents Diploma

Student must pass the following Regents exams:

- 1 Science
- Algebra Common Core
- Global Studies
- English Common Core
- US History

### Regents Diploma with Honors

Student must have an average of 90 or above on these Regents exams.

### Regents Diploma with Advanced Designation

Student must pass the exams required for the Regents Diploma, plus the following additional Regents exams:

- 2<sup>nd</sup> Science – one science must be Physical Setting (Earth Science, Chemistry, or Physics) and one must be Living Science (Living Environment)
- Geometry and Algebra II / Trigonometry
- Students must also pass three years of Foreign Language

### Regents Diploma with Advanced Designation with Honors

Student must have an average of 90 or above on the exams required for the Regents Diploma with Advanced Designation.

### Regents Diploma with Advanced Designation Mastery in Math

Student must score 85 or above on the math exams required for the Regents Diploma with Advanced Designation.

### Regents Diploma with Advanced Designation Mastery in Science

Student must score 85 or above on the science exams required for the Regents Diploma with Advanced Designation.

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## Service-Hour Requirements

This is just a reminder for all parents and students that the Religion Department of St. Mary's High School has a service-hour requirement for all students.

- Freshmen need a total of **10** hours (5 per semester).
- Sophomores need a total of **20** hours (10 per semester).
- Juniors need **30** hours (15 per semester).\*
- Seniors need **40** hours (20 per semester).\*

Students are encouraged to employ their God-given gifts and talents to serve at various levels in the spirit of St. Francis. Students will demonstrate an understanding of their Christian identity by making a commitment to meaningful service with a preferential option for the poor and those in need.

Those who have questions should contact the Campus Minister.

*\* For Juniors and Seniors, at least half of their Service Hours must be for an organization other than St. Mary's High School.*