ACADEMY OF MOUNT ST. URSULA

Course Selection Booklet

2023-2024



TABLE OF CONTENTS

Program of Studies/Diploma Requirements	3-4
Religious Studies Department	5-7
English Department	8-10
Social Studies Department	11-15
Mathematics Department	16-19
Science Department	20-23
Modern Language Department	24-25
Visual Arts Department	26-27
Music and Theatre Department	28-29
Computer Science Department	30-31
Physical Education/Health Department	32-33
<u>Guidance</u>	34-35

PROGRAM OF STUDIES AND COURSE CREDIT REQUIREMENTS Beginning with the Class of 2027

<u>FOR GRADUATION FROM AMSU:</u> At the end of senior year, 30.5 units plus physical education courses, guidance and service hours are required. Of these 30.5 units, the following units must be taken in the designated disciplines:

Total

Religious Studies	4
English	4
Social Studies	4
Mathematics	3
Science	3
Modern Language	3
Computer	1
Music	1
Art	1
Health	$\frac{1}{2}$
Electives	4
Physical Education	2

Grade 9		Grade 10		<u>Grade 11</u>		Grade 12
Religious Studies	1	Religious Studies	1	Religious Studies	1	Religious Studies 1
English	1	English	1	English	1	English 1
Social Studies	1	Social Studies	1	Social Studies	1	Social Studies 1
Mathematics	1	Mathematics	1	Mathematics	1	Elective Courses 3
Science	1	Science	1	Science	1	Physical Ed. ½
Modern Language	1	Modern Language	1	Modern Language	1	Guidance/College Workshop
Art I	$\frac{1}{2}$	Art II	$\frac{1}{2}$	Elective	1	
Physical Ed.	1/2	Physical Ed.	1/2	Physical Ed.	1/2	
Intro to Computer	1/2			Computer Science	1/2	
		Health	1/2			
Guidance/High School		Guidance/Career		Guidance/College		
Orientation and		Explorations 10		Prep 11		
College Prep 9						
Music	1/2	Music	1/2			
Total	8		8		8	6.5

<u>DIPLOMA REQUIREMENTS</u> NEW YORK STATE REGENTS HIGH SCHOOL DIPLOMA

Regents Courses Offered at AMSU:

English	Modern Language	Mathematics	<u>Science</u>	Social Studies
English 9	Spanish I,	Algebra I/H	Biology/H	Global 9
English 10/H	Spanish I-II	Geometry/ H	Chemistry/H	Global 10
English 11	Spanish II/H	Algebra II /H	Earth Science	US History & Gov't.
	Spanish III/H		Physics	

Requirements for the New York State Regents High School Diploma:

- 1. Completion of Basic Course Requirements, as on p.2.
- 2. Passing of 5: [all examinations require a score of 65 or above]
 - The Regents examination in English
 - One Regents examinations in Social Studies (Global History or United States History)
 - One Regents examination in Mathematics (Algebra I, Geometry, or Algebra II)
 - One Regents examination in Science (Living Environment, Chemistry, Earth Science, or Physics)
 - One additional Regents examination in Social Studies, Mathematics, or Science
 - Three units in a modern language and the FLACS examination in that language (AMSU requirement) or language other than English (LOTE) Oneida Herkimer BOCES Spanish or Italian Checkpoint B.

Requirements for the New York State Advanced Regents High School Diploma:

- 1. Completion of Basic Course Requirements, as on p.2.
- 2. Passing of: [all examinations require a score of 65 or above]
 - The Regents examination in English
 - The Regents examinations in Global Studies and in United States History and Government
 - Three Regents examinations in Mathematics (Algebra I, Geometry, and Algebra II)
 - Two Regents examinations in Science (One Life Science and One Physical Science)
 - Three units in a modern language and the FLACS examination in that language (AMSU requirement)

RELIGIOUS STUDIES DEPARTMENT

Four years of religious studies are required.

Religion 9: Revelation/Christology

The Revelation: Jesus Christ in Scripture (Semester One): The purpose of this course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course, they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. They will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. Particular attention will be paid to the Gospels, where students may grow to know and love Jesus Christ more personally. Who is Jesus Christ?

<u>Christology</u> (Semester Two) The purpose of this course is to introduce students to the mystery of Jesus Christ, the living Word of God, the Second Person of the Blessed Trinity. In this course, students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about who he is, the student will also learn who he calls them to be.

Religion 10: Paschal Mystery/Ecclesiology

<u>Paschal Mystery</u> (Semester One) The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails.

<u>Ecclesiology</u> (Semester Two) The purpose of this course is to help the students understand that in and through the Church they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both divine and human elements. In this course, students will learn about the sacred nature of the Church.

Religion 11: Sacraments/Morality

<u>Sacraments: Privileged Encounters with Jesus Christ</u> (Semester One): The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the Sacraments, and especially through the Eucharist. Students will examine each of the Sacraments in detail so as to learn how they may encounter Christ throughout life. Life in Jesus Christ

<u>Christian Morality</u> (Semester Two) this course aims to help students understand that it is through Christ that they can fully live out God's plans for their lives. Students will learn the moral concepts and precepts that govern the lives of Christ's disciples.

Religion 12: Catholic Social Teaching/Christian Lifestyles

Living as a Disciple of Jesus Christ in Society: Catholic Social Teaching (Semester One). The aim of this course is to invite students to become more aware of the major social and political issues confronting the world today, and to recognize the responsibility that each individual has to help overcome injustice. The course will use a multi-media approach to examine such issues as global poverty and hunger, homelessness, the threat of nuclear war, racism, and liberation in the developing world. The course will include viewing and analysis of audio-visuals, as well as reading and discussion of articles, Scripture reflection, and discussion of students' community service and social justice activism.

Responding to the Call of Jesus Christ: Christian Lifestyles (Semester Two): The purpose of this course is to help students to understand the vocations of life: how Christ calls us to live. In this course, students should learn how all vocations are similar and how they differ. The course should be structured around married life, single life, priestly life, and consecrated life. Students should learn what it means to live life for the benefit of others and the value in considering a vocation in service to the Christian community.

Religion 12: NEW ELECTIVE: Global Perspectives

In line with the Academy of Mount St. Ursula's mission statement, the "Global Perspectives" elective class seeks to instill "a love of learning and a broader global view, in a safe and nurturing environment, [as we] we strive to empower young women for leadership in society." In an increasingly interconnected and globalized world, made all the more clear with the Covid-19 pandemic, revealing long-entrenched and recently exacerbated disparities; as well as the increasing opportunities for interconnectedness through online platforms; as well as revealed in the global movements for Black Lives, racial justice, and climate justice, it is all the more important to study global issues with a multidisciplinary lens, developing awareness, empathy, and providing students with tools to become agents of positive social change.

The Global Perspectives on Catholic Social Teaching Course will cover the same core principles as the other Senior Catholic Social Teaching course, including God's plan for creating a just community, the different ways to put love into action, the major themes of Catholic Social Teaching, the dimensions of sin, the Papal encyclicals and the Pastoral Letters, and this elective course will have a particular focus on global injustices and global initiatives for social justice, combined with the

work of the UN Connection club through the Working Group on Girls at the United Nations. This course will include reading, writing, research, reflection, and discussion, as well as a hands-on component, including field trips to the United Nations, guest speaker presentations, and other online interactive experiences (i.e. Zoom meetings, webinars, etc.). The course will look more in depth at historical injustices related to colonialism, institutionalized racism, extractive economic development practices that have given rise to present day global inequalities between the Global North and Global South and within regions as well. Students will be encouraged to evaluate current events and international issues from a multidisciplinary perspective, analyzing the historical roots of present-day conflicts, evaluating the ethics and the complexity of international aid and development practices, studying and applying relevant Catholic Social Teaching through the Papal encyclicals and Pastoral Letters, and thinking critically to propose their own solutions as well.

ENGLISH DEPARTMENT

Students are assigned to courses in freshman year based on test scores and a diagnostic composition. Placement in Honors English is determined by performance, test scores and teacher recommendation. All students will take the English Regents Common Core Examination in January of their junior year. Departmental Literary Analysis/Research Papers are required for all levels of English; passing the senior research paper is a requirement for graduation.

English 9

This introductory course integrates writing, literature, grammar, vocabulary, speech, and online research to help students learn how to think critically and communicate clearly. Literature, the study of which helps students develop a deeper understanding of others, is covered by genre (poems, short stories, informational texts, novels, and plays) and is supplemented with videos (movie clips, TED talks, etc.) Class will be a combination of reading, multimedia presentations, lecture, note taking, class discussion, formal and informal writing, and group work. Creative writing is encouraged and often required. Students will read at least two novels, one of which will be a contemporary work by a diverse author. Students will also read one Shakespeare play, several short stories, and poems. Students are also introduced to the scholarly documentation style of the Modern Language Association.

English 9 Honors

The English 9 Honors class follows the same curriculum as English 9; however, it moves at an accelerated pace. Students are expected to do more independent reading outside of class and are expected to write at a higher level.

Prerequisites:

☑ Based on placement exam score

English 10

English 10 builds upon the foundations mastered in English 9. Students will have the opportunity to continue developing their critical thinking skills through a more advanced study of composition and literature. Work will continue on mastering the mechanics of sound and effective writing while in-class discussions of course material will continually promote clear verbal communication. Texts include at least three novels, a Shakespeare play, several short stories, and a dedicated unit on poetry. Class will be a combination of reading, multimedia presentations, lecture, note taking, class discussion, formal and informal writing, and group work. At the end of the year, students will be expected to produce an extended, formal literary exposition, complete with properly annotated primary and secondary sources per the guidelines of the Modern Language Association.

English 10 Honors

The English 10 Honors class follows the same curriculum as English 10; however, it moves at an accelerated pace and covers more sophisticated texts. Students are expected to do more independent reading outside of class and are expected to write at a higher level.

Prerequisites:

- ☑ Teacher Recommendation
- ☑ Course Average in English 9: 88%

English 11

English 11 seeks to answer the question, "What does it mean to be an American?" through a chronological study of major American works across varied genres. Students engage in literature that encompasses the themes, diversity, and complexity that characterize American thought and society. A variety of writing assignments aims to develop students' analytical, expository, and creative composition skills. Grammar and vocabulary study are integrated throughout the course and complement both reading and composition skills. Also, students practice the test-taking skills necessary for success on standardized examinations, including as the Regents Examination in English Language Arts, which is taken in January. Passing this exam is a requirement for graduation.

English 12

In English 12, a college preparatory course, students explore works of world literature in a variety of genres including novels, essays, short stories, poems, and plays. As students discover works of diverse cultures, they gain a broader world view about the universal issues inherent in the human experience. Students will also stay abreast of current events from around the world to supplement the works they are examining. In the study of such situations, the need for justice, compassion and civic responsibility are stressed, and students come to realize how connected we truly are. Students are assessed both informally and formally through class discussion as well as through writing activities, tests, quizzes, and multi-media projects. The goals in both oral and written communication are clarity, organization, and precision. The culminating project is an in-depth research paper, which well prepares the students for their coming college work.

AP ENGLISH LANGUAGE AND COMPOSITION (11th grade)

Students in this introductory college-level course read and carefully analyze a broad and challenging range of nonfiction prose selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing, students develop their ability to interact with language and text with a greater awareness of purpose and strategy, while strengthening their own composing abilities. The critical skills that students learn to appreciate through close and continued analysis of a wide variety of nonfiction texts can serve them not only with the AP exam but also many of the college classes that they will eventually be taking. Students examine and work with essays, letters, speeches, images, and imaginative literature. Students will also practice effective test-taking skills in order to best prepare them for the exam itself. As this is a college-level course, performance expectations are appropriately high, and the workload is challenging. Students are expected to commit to a minimum of five hours of coursework per week outside of class. Often, this work involves long-term writing and reading assignments, so effective time management is important.

Prerequisites:

- ☑ Teacher Recommendation
- ☑ Course Average in English 10: 90%

AP ENGLISH LITERATURE AND COMPOSITION (12th grade)

This is a college-level, literature-based course in the reading, critical analysis, and evaluation of literature from a variety of genres and eras culminating in the AP English Literature and Composition examination in May. Through the use of different types of literary criticism (reader response, feminist, etc.), students will improve critical thinking, interpretive skills, and writing skills. Students will study significant works of literature, study and apply literary terms and techniques, participate in whole-class and small-group discussions, with a concentration in literary analysis. Students will also practice effective test-taking skills in order to best prepare them for the exam itself. As this is a college-level course, performance expectations are appropriately high, and the workload is challenging. Students are expected to commit to a minimum of five hours of coursework per week outside of class. Often, this work involves long-term writing and reading assignments, so effective time management is important.

- ☑ Teacher Recommendation
- ☑ Course Average in English 11: 90%

SOCIAL STUDIES DEPARTMENT

Four years of Social Studies are required of each student. New York State requires two years of Global Studies (Grades 9 and 10), a year of American History, and a year of Participation in Government/Economics. Comprehensive Regents Examinations will be given after Global Studies 10 and after U.S. History/Government.

SOCIAL STUDIES 9

Global History and Geography I

This Regents preparatory course studies the interactions and evolution of the world's cultures and nations from the Paleolithic Era to colonialism between 1400-1750. Students will explore the continents' geography and their impact on human existence. There is an emphasis on using historian skills like analyzing primary sources and recurring themes.

SOCIAL STUDIES 10

Global History and Geography II

This Regents preparatory course resumes where the first-year course leaves off, focusing on the causes and effects of colonialism. Students hone the skills begun in year one and continue their study of world events and movements up until the present.

AP World

The College Board curriculum for this course culminates in the required AP exam in May, for which there is a fee (currently \$96 each, subject to change; waivers available for qualified students). Students will use historians' habits of mind and Socratic methods to analyze primary source documents as well as the causes and effects of turning points in the world's history.

Prerequisites:

- ☑ Teacher Recommendation
- ☑ Course Average in Global 9: 90% (75% on Final Exam)

SOCIAL STUDIES 11

United States History and Government

This course is an overview of United States history in general and chronologically. One of the major themes is recognizing and studying constitutional issues and the application of constitutional principles to historical and contemporary life. Further emphasis will be placed on the United States as an industrial nation and its involvement in international affairs. The U.S. History and Government Regents examination will be taken in June.

AP United States History

This course is a historical, political, economic, and social survey of American history, culture, and politics from colonial times to the present. There is an emphasis on analyzing primary sources and developing writing skills. Students in this course will take the AP US History examination in May, for which there is a fee (currently \$96 each, subject to change; waivers available for qualified students). The U.S. History and Government Regents examination will be taken in June.

Prerequisites:

- ☑ Teacher Recommendation
- ☑ Course Average in Global 10: 90% (85% for AP World)

SOCIAL STUDIES 12

All 12th-grade students must take either:

- A) AP United States Government and Politics/ Economics
- B) Participation in Government/Economics

Participation in Government (1/2 Year - must be taken with Economics)

Students studying Participation in Government take a course designed to emphasize the need to act as a responsible citizen. The American political process will be explored at length. Students will be led through the process of voter registration and choosing political party affiliations.

Economics: The Enterprise System and Personal Finance (½ Year - must be taken with Government or AP Government)

The Economics course will include basic economic concepts and understandings which all persons need to function effectively and intelligently as citizens and participants in the economy of the USA and the world.

AP United States Government and Politics (½ Year - must be taken with Economics)

Mirrors a college-level introductory course in United States government. It covers the foundations of the United States government, the role the American people play in the governing process, the institutions of the US government and the policies they pursue, and the development of civil liberties and civil rights in the US. Basic US and world economic concepts and understanding will be introduced. AP exam required in May, for which there is a fee (currently \$96 each, subject to change; waivers available for qualified students).

- ☑ Teacher Recommendation
- ☑ Course Average in US History: 90% (85% for AP US History)

Elective Courses:

Psychology (½ Year)

This course focuses on the study of human behavior. As an introduction to the field of psychology, this course includes consideration of psychological principles, terminology, major theories, careers, methods of experimentation, and practical applications. Special topics include personality development, problem-solving, group dynamics, and motivation.

Sociology (½ Year)

Sociology: This is an introduction to the study of human social interaction, focusing on individual social acts, social relationships, and social organizations. Methods of research, role-playing, and simulation games are some of the techniques utilized.

Anthropology (½ Year)

Anthropology: Students today are seeking an understanding of people and their culture. The study of anthropology can supply the insights and information needed to answer such questions.

History Through Film: (1/2 Year)

This course will cover the history of motion pictures – from the first silent films to the present-day streaming era. Students will examine the cultural significance of each pivotal era of cinema history, with a focus on the industries that created these films and the audiences surrounding them. Films will be viewed as texts and art to be analyzed; they are not just pieces of entertainment but also social and historical time capsules. The course will also track the constantly evolving technology and platforms for filmmaking. As an advanced social studies course, students will be expected to read historical texts and write formal essays and weekly film journals/reviews.

Political Economics: (1/2 Year)

A branch of economics that studies the relationship between individuals and society and between markets and the state, using a set of tools and methods from History, Economics, Science, Political Science, and Sociology. The purpose of the course is to enable students to understand the economic, political, social, and technological changes sweeping through society today. Focus will include deep dives into Globalization, Wealth Inequality, Technology, Climate Change, Gender Equality, Social Justice, Economic Opportunity, and Climate Change. This course will also feature numerous field trips to organizations involved in the focus areas mentioned above. For example - NASA for Climate Change, Columbia University for sustainable Economic growth, etc. The goal is to network with scientists, activists, politicians, and academics engaged in research and policymaking in these fields. I am looking for you to become Role Models, Leaders, and Representatives of our School.

- ☑ Teacher Recommendation
- ☑ You must have achieved First or Second Honors for the entire Spring 2023 semester.

Introduction to Communications: (1/2 Year)

This course is designed to help students prepare for both college and the real world by developing speaking and presentation skills. The course will focus on communications and media and help prepare students to be able to give good presentations and complete excellent projects in the future. The course is designed to be hands-on, and students will be able to complete projects based on their interests. Students will learn to be effective public speakers and complete persuasive, informative, and entertaining speeches. Students will also create various multimedia presentations and learn successful delivery methods.

Introduction to African American Studies: (1/2 Year)

This course will explore key topics from the African American experience. The course will examine early African Kingdoms, the origins and development of the slave trade, the abolitionist movement and the fight for freedom, the Civil Rights Movement, and then ongoing challenges and achievements of the contemporary fight for civil rights. Included in the studies will be an examination of the connection between Black communities in the United States and Africa and the African diaspora. The course will be an interdisciplinary approach that includes historical, literary, visual, and data analysis.

AP Capstone (AP Seminar and AP Research)

The AP Capstone program is, "an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges." (College Board) It is a two-year program. Students take AP Seminar in their first year and AP Research in their second year. Students who successfully complete AP Seminar and AP Research might be eligible for an AP Seminar and Research Certificate or an AP Capstone Diploma.

Part 1 AP Seminar (Grades 10, 11, and 12) (Music and Art Requirement must be fulfilled in Senior Year)

AP Seminar is a course designed to engage students in research-based inquiries on real-world topics and issues. Students will learn to read and analyze articles, research studies, literary and philosophical texts, and view and analyze artistic works, videos, and speeches. Students will learn to analyze multiple and divergent perspectives and synthesize information from multiple sources. Finally, students will learn to develop their own perspectives through research and to effectively communicate their conclusions in both written essays and oral and visual presentations. Overall, this course aims to equip students to be able to analyze and evaluate information in order to create and communicate evidence-based arguments.

AP Exam required in May, for which there is a fee (currently \$96 each, subject to change; waivers available for qualified students).

Part 2 AP Research (11 and 12)

AP Research is an interdisciplinary course that encourages students to demonstrate critical thinking and academic research skills on a topic of the student's choosing. Students in AP Research complete an intensive research project. Students are expected to evaluate current academia and research on their topic, identify a research gap, design and conduct an independent research project, and report their findings. The course culminates in a written and oral presentation.

Prerequisite:

☑ Successful completion of AP Seminar

MATHEMATICS DEPARTMENT

Three years of mathematics are required. For the required courses, students are assigned based on their prior achievements. Please note for a student to graduate and achieve a Regents diploma, they are required by NYS to pass the Common Core Algebra Regents with a 65.

MATHEMATICS 9

ALGEBRA I HONORS

This course follows the NYS Common Core syllabus for the first year of academic high school mathematics: Algebra. The course is integrated with units of geometry, probability, statistics, and introductory trigonometry, with an emphasis on real-world applications. It moves at an accelerated pace and is offered to freshmen in the honors math program. The Algebra I Common Core Regents Examination is required in June. Students must pass the course and the Regents exam with a grade of 65 or greater. If a student fails the Algebra I Common Core Regents in June, the student must take a summer school course and pass the Regents in August.

☑ Based on the AMSU Placement Exam

ALGEBRA I

This course follows the NYS Common Core syllabus for the first year of academic high school mathematics, Algebra. The course is integrated with units of geometry, probability, statistics, and introductory trigonometry, with an emphasis on real-world applications. The Algebra I Common Core Regents Examination is required in June. Students must pass the course and the Regents exam with a grade of 65 or greater. If a student doesn't pass the Algebra I Common Core Regents in June, the student must take a summer school course and pass the Regents in August.

MATHEMATICS 10

GEOMETRY HONORS

This course follows the NYS Common Core syllabus for the second year of academic high school mathematics: Geometry. The course includes all the topics in Geometry, with an emphasis on real-world applications. It moves accelerated and is offered to sophomores in the honors math program. The Geometry Common, Core Regents examination, is required in June

- ☑ A minimum grade of 85% in the Regents Algebra 1 CC course
- ☑ A minimum grade of 90 % in the Algebra and a passing grade in Regents Algebra1 CC course.
- ☑ Departmental Approval

GEOMETRY

This course follows the NYS Common Core syllabus for the second year of academic high school mathematics: Geometry. The course includes all the topics in Geometry, with an emphasis on real-world applications. The Geometry Common Core Regents examination, is required in June.

Prerequisites:

- ☑ A minimum grade of 65% in Regents Algebra I CC course
- ☑ Departmental approval

MATHEMATICS 11

ALGEBRA II HONORS

This course follows the NYS Algebra II Common Core syllabus for the third year of academic high school mathematics. It includes topics in Trigonometry, Algebra, Geometry, probability, transformations, and statistics, with an emphasis on real-world applications. The Algebra II Common Core Regents examinations are required in June.

Prerequisites:

- ☑ A minimum grade of 90% on the Algebra and Geometry courses
- ☑ A minimum grade of 85% on the Regents Algebra and Geometry CC exam
- ☑ Departmental approval

Algebra II

This course follows the NYS Algebra II Common Core syllabus for the third year of academic high school mathematics: Algebra II/Trigonometry. It includes topics in Trigonometry, Algebra, Geometry, probability, transformations, and statistics, with an emphasis on real-world applications. The Algebra 2 Common Core Regents examination is required in June.

- ☑ A minimum grade of 75% the Regents Algebra I CC Exam
- ☑ A minimum grade of 85% in the Geometry course.
- ☑ An average grade of 90% or higher in Intermediate Algebra and a midterm and final exam grade of 90% or higher.
- ☑ Departmental approval

INTERMEDIATE ALGEBRA

Level III This course is offered to juniors and provides an advanced study of Algebra while reviewing the concepts learned in Algebra I. The primary emphasis is on understanding and applying advanced algebraic concepts. Other topics will include probability and statistics. Although the course carries one unit of credit, it does not qualify a student for the Algebra II Regents in June or a Regents sequence in mathematics.

Prerequisites:

☑ A minimum grade of 65% in Algebra and Geometry

MATHEMATICS 12

PRE-CALCULUS

Students cultivate their understanding of differential and integral calculus by engaging with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions as they explore concepts like change, limits, and analysis of functions. Students use technology to help solve problems, experiment, interpret results, and support conclusions.

Prerequisites:

- ☑ A minimum average grade of 90% in the Algebra II course and 80% in Regents Algebra II Common Core Exam
- ☑ Department Approval

AP PRECALCULUS

This course will have students explore everyday situations using mathematical tools and lenses. Students build deep mastery of modeling and functions and examine scenarios through multiple representations. They will learn how to observe, explore, and build mathematical meaning from dynamic systems, an important practice for traveling in an ever-changing world. AP Precalculus prepares students for other higher-level mathematics and science courses. The Framework delineates content and skills common to college precalculus courses that are foundational for mathematics, physics, biology, health science, social science, and data science careers. Students are required to take the Advanced Placement exam in May, which is a testing fee (currently \$96, subject to change). Qualified Students may apply for a fee reduction.

- ☑ A minimum average grade of 90% in the Algebra II course and 85% in the Regents Algebra II Common Core Exam
- ☑ Department Approval

APPLIED MATHEMATICS

This Senior elective course is designed to foster enthusiasm and a greater understanding of mathematics. The first quarter is devoted to SAT preparation. Afterward, the course topics will include probability, problem-solving, critical thinking, set theory, logic, and real-world business applications. A group project will be assigned during the fourth quarter.

Prerequisites:

☑ Department Approval

Civil Level Engineering and Architecture/ STEAM (½ Year)

Be inspired to shape the spaces in the 21st century! The major focus of this course will expose students to use problem-based teaching through activities and projects. Students will not only design-build model rooms, landscapes, and residential and commercial buildings but will also hone their interpersonal skills and creative abilities while undergoing the design process. Topics will include a history of architectural, structural designs, architectural styles, landscaping, and green technology.

Prerequisites:

☑ Passing grades in Algebra I and Geometry courses

SCIENCE DEPARTMENT

Honors Living Environment Freshmen

Honors Biology covers all the Living Environment subjects but adds projects, interesting readings, and additional experiments to create a meaningful and layered student experience. Subjects include the molecules of life, biotechnology, including CRISPR gene editing, evolution, including the evolution of antibiotic resistance, and the ecological effects of global climate change. Honors Biology gives students a solid understanding of the interactions of living systems. Hands-on labs are geared to fun and the development of laboratory skills and include the four state-mandated labs. The course concludes with the New York State Regents exam, and coursework prepares students for the Regents throughout the year.

Regents Living Environment Freshmen

Regents Biology, the Living Environment, gives students confidence in science. From the molecules of life to genetic engineering to the use of cloning to save endangered species, through evolution, including the evolution of antibiotic resistance, the Living Environment gives students a solid understanding of the interactions of living systems. Hands-on labs are geared to fun as well as the development of laboratory skills and include the four state-mandated labs. The course concludes with the New York State Regents exam, and coursework prepares students for the Regents throughout the year.

Chemistry Sophomores

This course follows the NYS Regents syllabus. Modern theories of atomic structure, bonding, ionization, acids, and bases are among the topics studied. Students will develop specific hands-on laboratory skills. Using these skills, together with virtual laboratory investigations, they develop a better understanding of Chemistry. The course concludes with the New York State Regents exam, and coursework prepares students for the Regents throughout the year.

Prerequisites:

☑ Passing grade in Regents Biology or the Living Environment Regents examination

<u>Chemistry Honors Sophomores</u>

This course follows the NYS Regents syllabus. Modern theories of atomic structure, bonding, ionization, acids and bases, and organic chemistry are among the topics studied. This is a highly intensive course and students must demonstrate an exceptional degree of maturity and competency to qualify for this course. Students will develop specific hands-on laboratory skills. Using these skills, together with virtual chemistry laboratory investigations, students will develop a better understanding of Chemistry. Special chemistry projects are integral part of this

course. The course concludes with the New York State Regents exam, and coursework prepares students for the Regents throughout the year.

Prerequisites:

- ☑ A minimum grade of 85% on the Living Environment Regents Examination
- ☑ A minimum grade of 85% on the Algebra/CC Regents Examination

Regents Earth Science Juniors

Regents Earth Science gives students an up-to-date understanding of their planet, including global challenges such as climate change. It empowers students to be educated participants in the policy struggles of the 21st century. Earth Science begins the school year with the weather, just as the Atlantic hurricane season and the western wildfire season are in full swing. The course then goes on to astronomy and all aspects of the physical Earth. Labs and projects allow students to explore pertinent issues ranging from space junk to environmental justice. The course concludes with the New York State Regents exam, and coursework prepares students for the Regents throughout the year.

Prerequisites:

- ☑ Passing grade L.E Regents
- ☑ Passing grades in Algebra & Geometry Courses

Regents Physics Juniors

This course follows the NYS Regents syllabus and explores topics beyond the syllabus. The course is grouped around four main areas of inquiry: (1) mechanics and dynamics, (2) wave motion and light, (3) electrostatics, electrical properties of matter and magnetism, and (4) nuclear physics. Passing the Physics Regents examination, taken in June, is a course requirement. This is a highly intensive course and students must demonstrate a very high level of maturity and competency to qualify for this course.

Prerequisites:

- ☑ Passing grades in Algebra and Geometry courses.
- ☑ A Minimum of 80% on the Chemistry Regents Examination

AP Biology Seniors

This introductory college Biology course emphasizes three major areas: the molecular and cellular; the organismal; the ecological, evolutionary, and etiological. The method of presentation is a combination of teacher-student presentation and class discussion. With the use of a modern, fully computerized laboratory, emphasis is placed on using technology to assist students with their work, studies, and projects. Students are required to take the Advanced Placement exam

in May for which there is a testing fee (currently \$96, subject to change). Qualified students may apply for a fee reduction.

<u>College Biology</u> consists of two semester-long St. John's University Biology Department courses. The College Advantage Program at St. John's provides qualifying high school juniors and seniors with the opportunity to enroll concurrently in high school and credit-bearing St. John's courses at a cost of \$325 per course, a deep discount from regular undergraduate tuition rates.

Prerequisites:

- ☑ A minimum grade of 85% on the Living Environment Regents Examination
- ☑ Passing Grade in Chemistry

Forensic Science Seniors

Forensic Science is important in helping the police and other investigative authorities solve crimes. Forensics is a tool that is used every day around the world to find solutions to criminal and other nefarious activities by all people. This course will explore the following aspects of the forensic study: collecting, processing, and analyzing crime scene evidence, documenting, and reporting analysis results, holding mock trials, postulating theories, and examining mock crime scenes.

Prerequisites:

- ☑ Passing grade in Chemistry
- ☑ Department approval

Anatomy and Physiology Seniors

This course is designed for students interested in nursing or other health-related fields with a comprehensive study of human anatomy and physiology. All major systems of the human body are studied, with special attention given to the skeletal, muscular, nervous, cardiovascular, urinary, reproductive, digestive, and endocrine systems and the five senses. A weekly double-period lab reinforces the topics studied. Power-point presentations on diseases of these systems, special projects, and virtual labs are used to enhance objectives.

Prerequisites:

☑ Passing grade in Biology course

STEAM/Engineering Science Offer to Juniors and Seniors

Steam students will be exposed to the engineering design process by applying math, chemistry, physics, and engineering standards to hands-on projects. Students will work in groups to design structures using 3D modeling software such as CADD (3D architecture design software). They will learn concepts of electrical engineering, electronics, transformers, and various aspects of circuitry. AMSU has access to the Fordham Preparatory School's Flight Simulator, for study and flight, and space travel, in addition to ADNY Engineering Tomorrow labs.

This curriculum includes problem-solving skills, research and design, collaboration, documentation, and presentation skills.

Prerequisites:

- ☑ A passing grade in Physics and Earth Science
- ☑ A passing grade of 80% in the Algebra II course
- ☑ Department approval

Survey of the Plant and Animal World (New Elective)

Week one will concern the modern classification system, including the three domains, and how algae and fungi are fundamentally different from plants. After that, the whole course will be about plants and animals. In the first half of the course, Kingdom Plantae, students will learn about primitive plants such as mosses, and how the evolution of plant vascular systems enable to rise of the spectacular diversity of plants. Students will learn how to tell the different plant families apart, and labs will involve examining real plant material and identifying it to family, as well making slides if plant cross sections. This half of the course will also include an introduction to ethnobotany and natural products chemistry. There will be a field trip to the New York Botanical Garden.

The second half of the course will concern Kingdom Animalia, beginning with invertebrates with particular emphasis on Insects, and proceeding through vertebrates with particular emphasis on Mammalia. Labs will include examination of actual invertebrates and will also use as project-collaboration time, in which students explore issues in conservation. There will be a field trip to the Bronx Zoo, and to the Hall of Biodiversity at the American Museum of Natural History.

Prerequisites:

☑ Passing grade in Biology/Living Environment

MODERN LANGUAGE DEPARTMENT

Three years of Spanish and passing the Final Examination in Spanish III fulfills the Modern Language requirement. Due to our global interests and concerns, travel abroad, careers in business and Foreign Service, social service careers in our cities and understanding of varied ethnic groups, the study of other languages is a definite asset.

Spanish for Native Speakers

This course covers two years of the three-year sequence for Modern Languages. It emphasizes the audio-lingual method and intensive grammar study and forms the foundation for the Spanish III course. It is open to freshmen of Spanish-speaking background who have familiarity with Spanish but have never studied it in a formal setting.

Prerequisites:

☑ Demonstration of competency in oral conversation with the Department Chairperson.

Spanish for Native Speakers II

The Spanish Native Speaker 2 course prepares students to further their skills in Spanish with a focus on strengthening reading and writing skills. This course is intended for students who are proficient in English and can communicate socially in Spanish. Students will be able to use their developing listening and speaking skills as a bridge to develop more proficiency in reading and writing in Spanish. This course offers a Spanish language learning environment in which a student's background knowledge is valued and utilized leading to culturally responsive instruction.

Spanish I

This course will focus on the four verbal language skills: listening, speaking, reading, and writing. The main objective of this course will be to prepare students to feel confident when having to use the language. This will be acquired by learning vocabulary in different areas and Spanish grammar rules to build a solid base to understand, talk, read, and write in Spanish.

Spanish II

This course will be a continuation of Spanish 1 and will focus on the four language verbal skills: listening, speaking, reading, and writing. The main objective of this course will be to prepare students to feel confident when having to use the language. This will be acquired by learning vocabulary in different areas and Spanish grammar rules to build a solid base to understand, talk, read, and write in Spanish.

Spanish II Honors

Spanish 2 Honors will be a continuation of Spanish 1. The course will cover all the content of Spanish 2, it will be a review of all the basic concepts in Spanish vocabulary and grammar and the four language skills in Spanish, Speaking, reading, writing, and listening but it is designed to go in a more accelerated rate for students that have mastered at the basic level.

Prerequisites:

- ☑ Teacher Recommendation
- ☑ Course Average in Spanish I: 90% or higher
- \square

Spanish III

This course continues the first two years' work with special emphasis on listening and reading comprehension skills. Composition work and conversation are also stressed through the study of Spanish culture.

Spanish III Honors

Spanish 3 Honors is a continuation to Spanish 2 or Spanish 2 Honors. The course covers the same content as Spanish 3, but it is designed to progress at an accelerated rate and explore topics more in-depth. Emphasis is placed on continued development of the four language skills of listening, speaking, reading, and writing. The Spanish FLACS exam is administered in June.

Prerequisites:

- ☑ Teacher Recommendation
- ☑ Course Average in Spanish II: 90% or higher

AP Spanish Language and Culture Course Description

The AP Spanish Language and Culture is a college-level course in Spanish that provides opportunities to develop proficiency in speaking, reading, writing, and understanding Spanish in each of the three modes of communication -interpersonal, interpretive, and presentational. It is a language acquisition course designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where Spanish is spoken. Students are required to take the AP Spanish Language and Culture examination, which is administered in May for which there is a testing fee (currently \$96.00, subject to change). Qualified students may apply for a fee reduction.

- ☑ A final grade of 90% or higher in Spanish III
- ☑ Department approval

VISUAL ARTS DEPARTMENT

Art 9:

Basic art is designed to give 9th graders a fundamental understanding of the disciplined practices of working within the domain of the visual artist. Students are introduced to key concepts or elements of art that the artist uses to communicate visually. The course will center on visual thinking, and the students will learn key building blocks or ways of seeing that facilitate visual learning and problem-solving expressed through visual concepts. Basic Art is simply the fundamentals of visual thinking. This is a mandatory course for all freshmen, and there are no prerequisite requirements. The course will meet during an assigned period within the school day. (Semester)

Art 10:

All sophomores will take Art 10 unless they are enrolled in AP Seminar. Students taking AP Seminar will take Art as Seniors.

Studio Art/Fine Art: Junior/ Seniors

- The Fine Arts course is a full-year course elective. This course is meant to give students an opportunity to explore their creativity. Over the course of the year, students will learn the basics of painting with various mediums. Students will be guided to make individualistic choices about their work and craft. The students are expected to hold themselves up to a high standard and produce professional work. Throughout the course, we will look at different art movements in history. They will also be expected to research artists and their work. By the end of the year, students will have a body of work containing acrylic, watercolor, charcoal, and oil pastel paintings.

Prerequisites:

- ☑ Successfully complete Basic Art Minimum 75%
- ☑ Teacher recommendation

Portfolio: Sophomores, Juniors, and Seniors

The portfolio class is an advanced art course for students who desire to build a body of work that they will take into creative pursuits out of school. This course will engage students in various types of art. They will develop a diverse portfolio that showcases various art mediums such as watercolor, printmaking, acrylic painting, Oil pastel, charcoal drawings, illustration, animation, and digital art. This is a Full Year course.

- ☑ Successfully complete Basic Art
- ☑ Teacher Recommendation

Animation (1/2 Year) Junior/ Seniors

Students will learn the basics of animation and character art in this animation course. They will become familiar with animation programs like procreate and Adobe Animate.

Prerequisites:

- ☑ Teacher recommendation
- ☑ Portfolio Presentation

Art Academy Art Academy Sophomores, Juniors, and Seniors.

This course will allow students to hone their draftsmanship skills and introduce them to various forms of fine art. Students will gain a fundamental understanding of the practices and techniques of painting and drawing. They will develop the disciplined seeing and visual thinking necessary for understanding complex forms and how to translate viewed three-dimensional objects onto a two-dimensional surface through the use of still-life objects in various mediums. By the end of the course, students will have a portfolio of work.

- ☑ Teacher recommendation
- ☑ Portfolio Presentation

MUSIC AND THEATRE DEPARTMENT

Music 9:

Introduction to Music

Music 10:

Music Appreciation

All sophomores will take Music 10 unless they are enrolled in AP Seminar. Students taking AP Seminar will take Music as Seniors.

Elective

Music Electric

Throughout world history, music has been an essential means of communicating the emotions, values, and ideals of every culture and society. The goal of this course is to enhance students' appreciation of music both as a discipline and as a medium of human expression by providing students with musical experiences through studying a variety of styles and genres of music. Students will come away with a foundational knowledge of music theory, instrumentation, classical music, jazz, and opera/musical theatre. Students take trips to the Metropolitan Opera and a Broadway show.

Piano Lab

Sophomores, Juniors, and Seniors

This course provides a solid foundation in the fundamentals of playing the piano. Repertoire will include a range of styles and genres such as folk songs, classical works, and popular music. There is no requirement of past experience with playing the piano and the curriculum can be flexible to meet the needs and desires of the students in the class. Students who have past experience playing the piano will be assessed and given appropriate material to match their skill level. This class performs in the Christmas concert and the spring concert may also prepare an individual solo piece to be performed at an end of the year performance and may attend outside performances as well. Keyboards and headphones are provided.

Girls with Guitars-

Sophomores, Juniors, and Seniors

Have a guitar at home gathering dust in a closet? Always wanted to learn how to play? Then this elective is for you. Learn basic chords and eventually play along with your favorite popular songs. Having your own guitar is helpful, but not mandatory-loaner guitars will be available- a small fee may apply.

Performing Arts

Elective for Sophomores

This class is for anyone who wants to know more about acting and theatre and will cover a wide variety of topics such as pantomime, improvisation, vocal projection, stage movement/blocking, theatre history, auditioning, character development, musical theatre, acting methods, the business of theatre, etc. This class also attends two Broadway/off-Broadway performances during the course of the year and will develop playwriting skills weekly with a professional NYC playwright through AMSU's partnership with The Theatre Development Fund. Participation in this class will enhance and solidify performance skills for already experienced performers but would also be very beneficial for anyone who wants to gain confidence, express themselves in new ways, or simply learn more about the process of acting and doing theatre. Participation in AMSU's spring musical production as either an actor or crew is strongly encouraged but not required.

COMPUTER SCIENCE DEPARTMENT

<u>Introduction to Computers</u>

Required, Freshmen

This digital literacy course provides students with the fundamental knowledge of computer hardware, software, the Internet, and programming. The goal of this course is to ensure students have the relevant foundational skills needed in their future academic and career environments.

Computer 10

<u>Introduction to Computer Science</u>

Elective, Sophomores, Juniors, and Seniors

Students will explore the breadth of computer science through this multi-topic course. The students in the class get to choose the topics like web design, app building, robotics, e-textiles, Artificial Intelligence, Big Data, and more.

Prerequisites:

☑ Intro to Computers or the equivalent.

AP Computer Science Principles

Elective, Juniors, and Seniors

AP Computer Science Principles (APCSP) is the equivalent of a first-year college-level computing course. You will learn how computer science relates to our everyday life and how you can use it to make a change in the world. The course also emphasizes how computer science has impacted and changed other fields like Medicine and the Arts. Although you will learn programming, this course is essentially "Computer Science for Non-Computer Science majors".

Students are required to complete a programming project in addition to taking the Advanced Placement exam in May, for which there is a testing fee (currently \$96, subject to change). Qualified students may apply for a fee reduction. By enrolling in the class, you are agreeing to take the AP exam.

- ☑ A minimum grade of 75% in Algebra 1 course
- ☑ A minimum grade of 75% in your current English course

Business Technologies

Elective, Sophomores, Juniors, and Seniors

Learn how businesses around the world use technology by creating your own global business. You will learn to develop, market, finance, and pitch your business idea while developing problem-solving, business thinking, web design, and app building skills. Part of the focus of this course is to understand the needs of communities in other countries and how technology may help. This course can be taken as part of the Global Scholars Program.

PRE-REQUISITES:

☑ • A minimum grade of 75% in Algebra 1 course and in your current English course.

PHYSICAL EDUCATION/HEALTH DEPARTMENT

AMSU's Physical Education and Health Department supports all students' physical, intellectual, and social-emotional development. Our goal is to engage and help inspire students to pursue a lifetime of fitness-related activities and healthy decisions and to value and apply physical activity and its benefits for a lifetime.

Physical Education 9

This course is designed to introduce the student to basic concepts in physical education. A number of icebreakers and cooperative games are played in the first few sessions. An introduction to individual and team sports is offered. Basic aerobic concepts are presented, whereby students must develop an acceptable aerobics routine to be demonstrated in class.

Physical Education 10

This course develops the philosophy behind team activities and further advances exercise theory and individual and dual sports. Team competition in soccer, volleyball, basketball, and floor hockey, including methods of scoring, is required.

Physical Education 11

This course contains advanced levels of team competition in flag football, volleyball, basketball, and floor hockey. Opportunities are afforded each girl to coach and/or officiate in any or all of these sports. Advanced levels of individual and dual sports are taught, and an advanced level in aerobic dance is offered.

Physical Education 12

Students will learn a variety of strategies in cardiovascular endurance activities and team building with an emphasis on developing lifelong habits of fitness. Tournament play of team sports is introduced. Based on their individual interests, students are required to research and effectively present a multicultural game or sport that has not been covered in their previous years of Physical Education.

Health and Wellness

Required, Sophomores

Health and Wellness Education provides students with the knowledge and skills necessary to help them make healthful decisions—both now and in the future. Students will develop the life skills such as analyzing influences; accessing information, interpersonal communication skills, decision making, goal setting, self-management; and advocacy for personal, consumer, and family health to enhance their potential for academic success and healthier, happier, and more productive lives. Knowledge of accurate health information is essential. Practicing health-related skills in real-life situations and developing healthful behaviors are the ultimate goals of the program. Health and Wellness Education aligns with NYSED by emphasizing lifelong positive health-related attitudes and behaviors that promote self-reliance and self-regulation for all students.

GUIDANCE

<u>HIGH SCHOOL ORIENTATION AND COLLEGE PREP 9</u> <u>Required, Freshman</u>

This course will focus on learning various study and time management skills to help facilitate a better transition into high school. Students will also begin to prepare for upcoming standardized tests, including PSAT, SAT, PRE-ACT & ACT, by learning and differentiating between question types and utilizing test-taking strategies. The guidance counselors will also discuss the transition into high school and any other issues or questions that arise. We will also discuss diploma requirements and proper course selection, beginning introductory information about college, and answer any questions that the students might have.

As a combination, the course and individual meetings with your counselor will help each student come to a better understanding and acceptance of yourself, your relations with others, and your home and school environment. This experience should aid you in adjusting to high school an managing new problems and demands that can come with the transition to high school.

<u>CAREER EXPLORATIONS 10</u> Required, Sophomores

This course will focus on preparation for upcoming standardized tests including the PSAT, SAT, PRE-ACT, and ACT by learning and differentiating between question types and utilizing test taking strategies. Students will also explore general college and career readiness skills to aid them in their future success.

The guidance counselors will introduce the sophomores to career exploration. In addition to the course, students will have an opportunity to meet with their guidance counselors on an individual basis during the Spring semester to discuss their personal career path and exploration process, and through this they will develop an understanding of their skills, interests, and values in relation to this topic. Sophomores will be set up with a Naviance account, which gives them access to a comprehensive college and career readiness solution for high school students that helps align student strengths and interests to post-secondary goals and improve student outcomes. Through interactive assessments, career cluster research tools, and resume builders, sophomores will become more informed about what path they will take in the future and the skills they need to achieve success.

COLLEGE PREP 11

Required, Juniors

This course will focus on preparation for upcoming standardized tests including the PSAT, SAT, PRE-ACT and ACT by learning and differentiating between question types and

utilizing test taking strategies. Explanation and registration will be completed for the first administration of the SAT during the spring of Junior year.

Students will also explore college and career readiness skills to aid them in their future success. In addition to the course, students will have the opportunity to meet with their guidance counselors on an individual basis during the Spring semester to discuss their personal college readiness and exploration process through a deeper use of their Naviance account, including finding a college that is the "right fit", as well as the requirements that they will need to be accepted into their desired colleges. The course will focus more specifically on the college application process. A parent meeting to explain the college process also takes place in the Spring. Diploma requirements will again be reviewed, with an emphasis on making the appropriate course selections for senior year in preparation for graduation.

COLLEGE ADVISORY 12 Required, Seniors

discussions on transitioning into college life.

Meeting weekly in small groups, seniors will have an opportunity to work hands-on with their Guidance Counselor on completing and submitting their college applications and all supplementary materials. Seniors will also be able to attend Instant Decision Day meetings with participating colleges. They will also provide detailed information to their counselors about admissions decisions, merit

scholarship awards, and narrowing down their enrollment choice and will also have

An evening workshop for Parents and Families is also hosted in the Fall, with participation from various local college and university Admissions representatives, as well as an evening Financial Aid Workshop.