ROBERT M. GRABLE JR.
MOUNT SINAI HIGH SCHOOL

COURSE OFFERINGS GUIDE

2024 — 2025

12/13/2023

ROBERT M. GRABLE JR.
MOUNT SINAI HIGH SCHOOL
MOUNT SINAI, NEW YORK 11766

Peter J. Pramataris
Principal

Christina Romeo
Assistant Principal

January 2024

Dear Parents / Students:

The goal of the faculty and administration of Mount Sinai High School is to provide students with an education that encourages and develops social and emotional growth, critical thought, analytical problem solving, leadership, and citizenship. Education is a life-long process. In order to prepare you to meet the demands of a rapidly changing world, course offerings need to be rigorous, challenging, and relevant.

The scope and sequence of courses offered at Mount Sinai High School allow students to individualize their academic program and chart a course for future success. As students begin the course selection process for the upcoming school year, we encourage them to strongly consider requesting enrollment in courses that offer a rigorous curriculum in order to challenge and enhance their academic interests and abilities. Doing so will provide them with opportunities to apply prior knowledge and learning experiences as a means for achieving higher levels of academic success. As such, the High School's instructional staff will continue to provide students with the instructional support and resources necessary to foster students' success at all levels. It is recommended that students carefully read the course descriptions and actively seek the advice and guidance of their parents, teachers, administrators, and counselors.

The above said, the course offerings catalog that follows has been prepared to assist you with the course selection process. Again, please do not hesitate to contact your child's guidance counselor for assistance.

Sincerely,

Peter J. Pramataris
Principal

Christina Romeo
Assistant Principal

Kristina McGuire
HS Lead Counselor

TABLE OF CONTENTS

GRADUATION REQUIREMENTS

The Grade 12 graduation requirements are a combination of the New York State Board of Regents mandates and Mount Sinai Board of Education requirements.

LOCAL DIPLOMA

This is an endorsement indicated on students' diplomas, which certifies that students have completed a course of study specified by the New York State Education Department as well as the Mount Sinai School District. This diploma option is only available for students with disabilities. The New York State Education Department has approved changes for various safety net options pertaining to a local diploma. As such, the aforementioned safety net options will be communicated to students and parents as applicable. For specific information regarding these safety net options for local diplomas, contact the Pupil Personnel Services Department.

REGENTS DIPLOMA

This type of diploma certifies that students have met the commencement level New York State Learning Standards by successfully completing a certain number of units of credit and New York State assessments based upon the year that they entered ninth grade. Students meet these requirements through courses of study in the areas of English, Social Studies, Math, Science, the Arts, Health, World Languages Physical Education, and Career and Technical education. A Regents Diploma may be awarded with a technical endorsement or honors distinction.

REGENTS DIPLOMA WITH ADVANCED DESIGNATION

This type of diploma certifies that students have completed requirements in addition to those for a Regents Diploma. For this designation, students complete two additional credits in a World Language, or five credits in a career and technical education area, OR five credits in the arts. In addition, students must take and pass a second Regents examination in Science and three Regents examinations in Mathematics.

ADDITIONAL HONORS DESIGNATIONS

The New York State Board of Regents offers the following honors to students with exemplary academic performance:

- A student who earns an average score of 90 or higher (without rounding) on required exams is eligible for a Regents Diploma with Honors or a Regents Diploma with Advanced Designation with Honors.
- A student who earns scores of 85 or higher on all of the required mathematics Regents Examinations is eligible for an annotation on their diploma that states that the student has mastery in mathematics.
- A student who earns scores of 85 or higher on at least three science Regents Examinations is eligible for an annotation on their diploma that states that the student has mastery in science.
- A student who earns scores of 85 or higher on at least three mathematics Regents Examinations and scores of 85 or higher on at least three science regents Examinations is eligible for an annotation on their diploma that states that the student has mastery in mathematics and science.

CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES COMMENCEMENT CREDENTIAL

The Career Development and Occupational Studies (CDOS) Commencement Credential is only available for students with disabilities according to their Individual Education Program (IEP) requirements. For specifics regarding this credential, contact the Pupil Personnel Services Department to obtain updated information.

SKILLS AND ACHIEVEMENT COMMENCEMENT CREDENTIAL FOR I.E.P. COMPLETION

The Skills and Achievement Commencement Credential is only available for students with disabilities with an IEP indicating New York State Alternative Assessments. For specifics regarding this credential, contact the Pupil Personnel Services Department to obtain updated information.

GRADUATION REQUIREMENTS OVERVIEW

Requirements for Graduation

Course	Credits
English Language Arts	4
Social Studies	4
Math	3
Science	3
Health	½
Art / Music	1
Electives	4 ½
Physical Education	2
World Languages	1
Total Units	**23**

Regents Diploma	Regents Diploma with Advanced Designation
English Language Arts	English Language Arts
Algebra I	Algebra 1
	Geometry
	Algebra 2
Global History	Global History
U.S. History	U.S. History
Earth Science	Living Environment
	Earth Science, Chemistry or Physics
	World Languages Assessment (Local)*
	*May substitute 5-unit sequence
	Art, Music or Occupational Education

Special Notes:

1. Students must score at least a 65% on all required Regents exams.
2. *Special Education Safety Net* is extended for all classified students.

SCHEDULING/COURSE CHANGES

It is critical that students and parents read and adhere to the course selection time schedule listed below. Courses to be offered during the school year are based on student selections. That said, courses in the catalog are listed on a tentative basis. Courses that fail to meet minimum enrollment requirements may not be offered. Historically, it has been our practice not to offer courses with initial enrollments of less than twenty (ten for Advanced Placement and special classes) unless there are unique and extenuating circumstances. Therefore, students should make their course selections carefully and select alternate courses when constructing their academic schedules.

Scheduling Calendar

January	Presentation of Mount Sinai High School Course Offerings Guide found on district website.
January/February	All students will be provided with a scheduling worksheet; Upon review of the Course Offerings Guide, discuss with your child their requests for the upcoming year.
April/May	Students' course selection sheets will be mailed home for parental review and acknowledgement. Signed forms will be returned to the counseling center. Guidance counselors will meet with applicable students to resolve any scheduling conflicts.
June	Upon final review of grades and credits for the current year, all scheduling decisions are considered **final.**

The course selections that you make in January/February will reflect your academic program for the upcoming school year. Schedule changes will be made in September to rectify clerical errors, if a student failed a course requirement for placement in an advanced course, or special situations as determined by the building principal.

WITHDRAWAL FROM A COURSE

Students are expected to remain enrolled in a course until its conclusion. While there are exceptions, determined by the applicable directors and/or principal, a student will not be permitted to withdraw from a course after the first marking period has concluded. A student wishing to drop a course must consult with their parents, teacher, counselor, and principal. The principal may issue a withdraw/fail (W/F) at their discretion, or upon the recommendation of the classroom teacher. As a result of a withdraw/fail (W/F), a student will receive a grade of 60%. No student is withdrawn from class until official notification from guidance or the principal is given to the classroom teacher. The student's request to drop a class or change a program is merely a request and not official until the principal has made the decision.

SUMMER SCHOOL

If a student fails a course and retakes it during summer school (or credit recovery program), both the final grades (original and retake) will be displayed on the student's transcript and averaged into their cumulative grade point average.

GRADE WEIGHTING, CLASS RANK AND VALEDICTORIAN DETERMINATION

The Mount Sinai Board of Education recognizes that some academic programs are more rigorous and challenging than others. The *Grade Weighting* protocol recognizes this reality, and rewards students for taking more challenging and rigorous courses of study.

- Ranking will not be considered for those students who transfer to Mount Sinai High School in their senior year or for those students who graduate early.

GRADE WEIGHTING

Grades are weighted on a scale as follows:

- Advanced Placement courses are multiplied by a factor of 1.15.
- Honors courses are multiplied by a factor of 1.05.
- Upon transferring to Mount Sinai High School all transcripts will be thoroughly reviewed. Only Advanced Placement, Honors and Project Advance courses offered at Mount Sinai High School will be weighted.

The aforementioned weighting protocol establishes the relationship between all courses and those designated in the categories noted above.

GRADE POINT AVERAGE

Students' grade point averages are determined at the end of each semester except as noted for Valedictorian and Salutatorian (see below), based upon the aforementioned *Grade Weighting* protocol. Academic averages reported to colleges on students' transcripts will reflect weighted and unweighted grade point averages.

VALEDICTORIAN/SALUTATORIAN DETERMINATION

The Valedictorian and Salutatorian for graduating students will be calculated and rank ordered at the end of the third quarter of the year in which the class graduates. Such determination is final and no adjustments will take place thereafter.

HONORS AND ADVANCED PLACEMENT PROGRAMS

Mount Sinai High School offers a number of Honors and Advanced Placement courses. Prerequisites for a student to be enrolled in Honors and Advanced Placement classes include academic performance in previous classes, teacher and director recommendations, counselor input, and student interest.

DUAL CREDIT COURSES

Mount Sinai High School has partnerships with the following colleges and universities: Adelphi University, Farmingdale State College, LIU Post, Stony Brook University (ACE program), SUNY Cobleskill, and Syracuse University (Project Advance). Students enrolled in college/university affiliated courses have the opportunity to pay a designated fee (as determined by each college/university) to receive college credit.

ACADEMIC EXPECTATIONS

Students should plan their programs with the intention of not only fulfilling minimum requirements, but also taking full advantage of the many elective courses offered in the various departments. The minimum number of periods for which students must be scheduled are:

Grades 9 through 11	Eight instructional periods plus lunch
Grade 12	Seven instructional periods plus lunch

Students who fail either English Language Arts or Social Studies during the school year must attend summer school to complete this requirement. (Two required English Language Arts or Social Studies courses may not be taken in the same year without the applicable director's and principal's approval.) Students may re-take a Regents exam in summer school. The course grade will be recalculated as a result of an improved Regents score for August re-takes during the same academic school year only.

ATTENDANCE PROCEDURE

Students must attend each class a minimum of 85% of the time.

Full-Year Course – the minimum attendance is 85% or 153 days per year. Therefore, a student may be absent no more than 27 days. A student will be in violation on the 28th absence.

Half-Year Course and Physical Education Class – the minimum attendance is 85% or 77 days. A student will be in violation on the 14th absence.

Science Courses with Lab period – the minimum attendance is 85% or 229 periods. A student will be in violation on the 41st absence.

If credit is denied, a student will receive a C/D 50% grade for the specific course and must attend classes regularly and maintain proper behavior. The student is still entitled to participate in examinations. Failure to continue to attend class on a regular basis and maintain appropriate behavior will result in disciplinary action and may result in the student being removed from the class.

Summer School Eligibility Requirement – A student who fails to continue to attend classes on a regular basis will not be eligible to attend summer school. *Summer school requires seat time.*

NCAA ELIGIBILITY

The National Collegiate Athletic Association has specific requirements for participating at the Division I or II athletic level. A student-athlete entering a NCAA Division I or II institution must meet certain requirements to be eligible for financial aid awarded by the institution, to practice and compete on an intercollegiate team.

- The NCAA courses are maintained as a guide for prospective student athletes seeking NCAA initial eligibility.
- Certification of a prospective student athlete is case-specific, and the NCAA Eligibility Center has the authority to determine in its sole discretion whether the prospective student athlete has met all criteria
- The NCAA Eligibility Center reserves the right to review and remove courses that were previously approved from their Approved Courses list
- When it comes time for students to select courses during the scheduling process, it is important for prospective student athletes to refer to the most current list of approved Mount Sinai High School courses which are available on the NCAA website at NCAA Eligibility Center.

NCAA approved courses are indicated in the course description with the following symbol: NCAA

SPECIAL EDUCATION DEPARTMENT
Mrs. Doris Savelli, Director

The special education programs are for students who are identified by the Committee on Special Education (CSE) as having specific learning needs requiring specialized instructional techniques. The objectives of the programs are:

- Remediate specific deficit areas through multi-sensory sequential techniques.
- Provide a secure, low pressure, success-oriented environment where each student can learn at his/her own pace.
- Build organized, self-initiated work habits and improve behavior.
- Develop students' increased self-confidence through awareness and acceptance of individual strengths and weaknesses.
- Help classroom teachers understand individual disabilities and assist them in utilizing effective methods of teaching each student in his/her class.

Services
Students with a disability, who are classified by the Committee on Special Education (CSE), have access to the full range of programs and services appropriate to their specific needs.

The CSE will consider what instructional techniques and modifications are being provided and make the appropriate recommendations.

Special Note
Students seeking a Regents Diploma with Advanced Designation who pursue a 5-credit sequence in art, music, or occupational education may be exempt from the World Language requirement. Students with a disability may be exempt from the world language requirement for a Regents Diploma if their I.E.P. states the requirement is not appropriate.

Special Education Safety Net
The Board of Regents approved the extension of the safety net for students with a disability. To earn a Regents Diploma, students must take and pass the required coursework and five Regents examinations with grades of 65 or higher. The safety net allows students with disabilities who do not pass one or more of the Regents exams required for their graduating class to satisfy the requirements for a local diploma as outlined by the New York State Education Department. In order to obtain specific information regarding these safety net options for local diplomas, contact the Pupil Personnel Services Department. These students will receive a New York State Local Diploma.

ART
Mrs. Tricia Panasci, Director

Studio in Art **7171**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: None
Studio in Art follows a comprehensive curriculum based on the New York State Standards for the Visual Arts. Students will be introduced to a variety of techniques such as drawing, painting, sculpture, collage, and assemblage. This course covers and reinforces the elements and principles of design with an exploration of various media. Throughout the course, students will explore traditional art styles, contemporary movements, and the role of the artist in society. Studio in Art satisfies the New York State requirement for one year of fine arts at the high school level and is a prerequisite for a five-unit sequence in art.

Drawing and Painting **7488**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Studio in Art
This full year studio course concentrates on all aspects of drawing and rendering, using various media including pencil, charcoal, pastel and ink. Color application and painting techniques will be explored, including watercolor, acrylic, and oil paint. Students will explore the genres of still life, landscapes and portraiture. Throughout the course, students will examine classical and contemporary painting styles and become aware of the artist's role in the development of civilizations.

Ceramics I **7473**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: None
This course is for students who wish to work exclusively in clay. Various methods of pottery making are explored including coil and slab construction and wheel throwing. Ceramic sculpture is experienced in its many aspects, both functional and non-functional. Students learn advanced glazing techniques, properties of glazes, and experiment with several clay bodies.

Ceramics II **7474**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: Successful completion of Ceramics I
This class is for the true "potter." Ceramics II allows students to follow-up on preferred techniques and styles in clay working, focusing on those areas in a comprehensive, self-motivated program. Students learn advanced wheel-throwing techniques, slip casting, and mold making. Multi-media art forms including fired ceramic elements are also explored.

Advanced Ceramics **7478**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Ceramics I and II
Studio work in Advanced Ceramics will focus on improving techniques and skill level. This course has a primary focus on the functional form. Composite forms are constructed incorporating both wheel and hand forms. Discussions and critiques take place in the context of principles of design and function. Students are encouraged to identify thematic and technical focus to expand their portfolio.

Sculpture Mixed Media I **7481**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This class explores the various materials used to create sculptures, which include clay, wood, plaster, glass, steel and stone. Students learn how to manipulate these materials and use sculpting tools safely. Students will build upon previous experiences, as well as be introduced to new media and tools for expression in sculptural form. There is an emphasis on the development of form and structure particular to each process.

Sculpture Mixed Media II **7482**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: Sculpture Mixed Media I
This class continues the study and use of the various materials used to create sculptures, which include clay, wood, plaster, glass, steel and stone. The students will continue to manipulate these materials and use sculpting tools safely. Students will build upon previous experiences in Sculpture Mixed Media I and develop a higher-level portfolio in sculptural form. There is an emphasis on form and structure particular to each process.

Fashion Design & Illustration **7490**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: Successful completion of Studio in Art
This introductory course to fashion drawing and design will focus on the basics used in the fashion industry. In this course, students will develop drawing skills with an emphasis on figure gesture and proportion utilizing a wide range of media. Students are introduced to illustration techniques while communicating design concepts in clothing with style and expression. This course will emphasize art basics and original ideas through the exploration of drawing the fashion figure, and the illustration of fashion design. Costume design, fashion history, and the study of textiles are also included. Students will explore the world of fashion through illustration, computer-assisted graphics, field trips, and visiting artists.

Digital Photography I **7484**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
Digital Photography is a half-year foundation course, which focuses on the principles of art as they pertain to digital media. Students will learn fundamental techniques and applications of acquiring, manipulating and out-putting digitized photographic images utilizing Adobe Photoshop and/or graphic programs in collaborative and individual projects. Students will learn how to analyze master photographers in their own works in order to understand how to visually communicate and express thoughts through photographic images

Digital Photography II **7485**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: Digital Photography I
Digital Photography II is a half-year course to further enhance the fundamentals of photography. Students will learn to develop photographs compositionally but use of DSLR cameras and functionalities. Additionally, students will use Adobe Photoshop for outputting images with use of graphic arts and edits. Students will continue to analyze master photographers in their own works in order to understand how to visually communicate and express thoughts through photographic images.

Digital Illustration and Design **7170**
Level of Student: 9-12
No. of Credits: ½
Prerequisite: None
This course deals with the fastest growing field in the art world - graphic communications/digital illustration and design. Concepts like advertising design, editorial design, graphic design and package design will be the foundation of this course. Students will learn how to use Adobe Photoshop and Illustrator and will be able to experiment with typography, poster design, logo creation, t-shirt design and more.

Portfolio Preparation/General Art **7475**
Level of Student: Grade 11
No. of Credits: 1
Prerequisite: Studio in Art and Drawing & Painting
Portfolio Prep/General Art is a full year course. This course is designed to enable all students to prepare work for inclusion in an advanced portfolio. The course assignments will allow students to develop and expand upon their knowledge of the elements and principles of design. Students will utilize their ideas related to visual sensitivity and perceptual awareness. This course may be taken as the first year of the two-year AP Studio Art program, or as a single year course. Credit may be applied to five-year sequence in art.

Advanced Placement Studio Art - Drawing* **7486**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: Portfolio Preparation; teacher recommendation and approval of the Fine Arts Director
AP Studio Art is a full year course designed to allow students to develop an advanced Drawing Portfolio. Students will create a series of original works with conceptual themes and topics. Students will utilize advanced application techniques to reflect their understanding of the elements and principles of design. All students enrolled in the class are required to submit a portfolio for review by a committee certified by the College Board for AP credit.

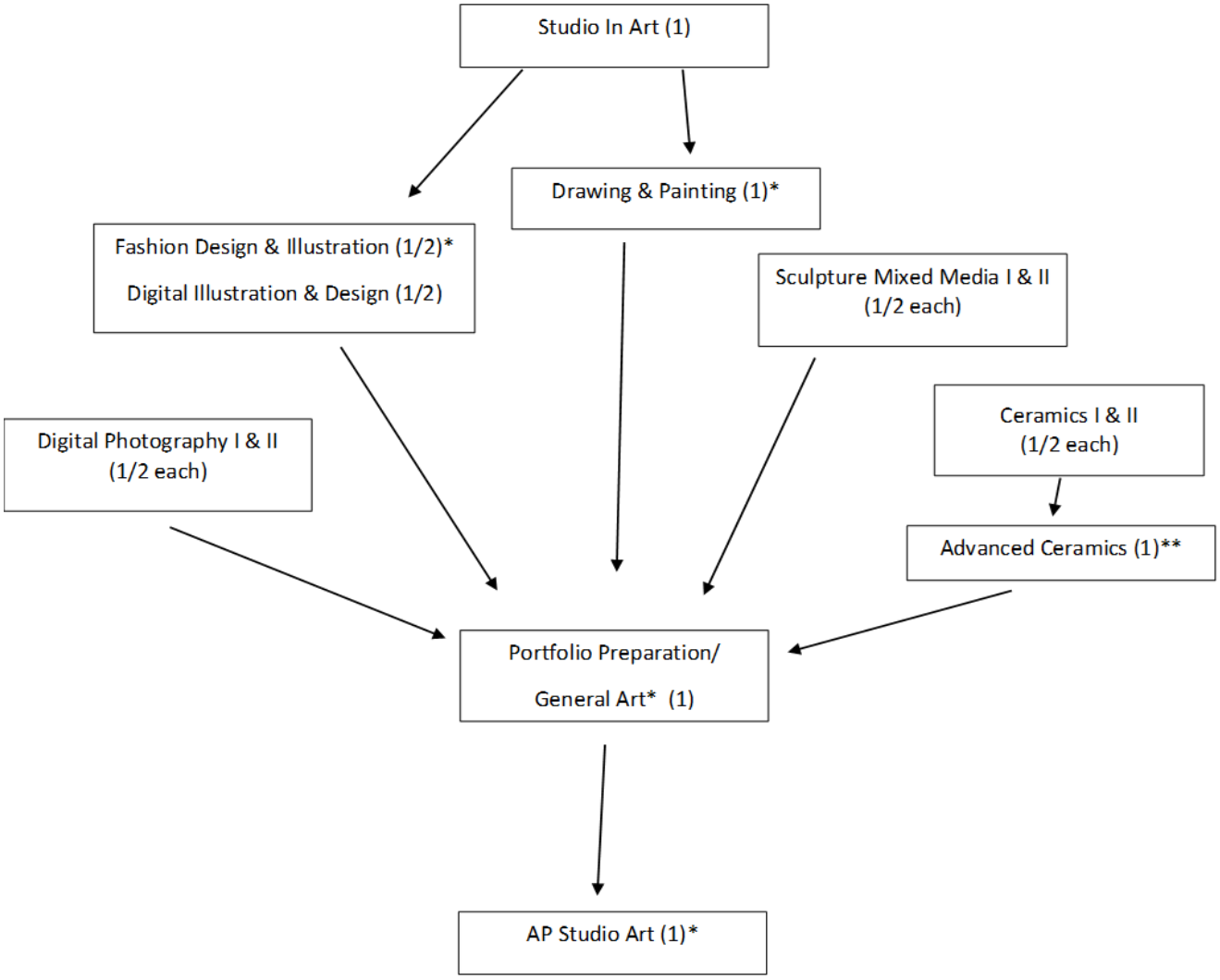
Advanced Placement Studio Art - Photography* **7487**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: Digital Photography I & II; teacher recommendation and approval of the Fine Arts Director
AP Studio Art is a full year course designed to allow students to develop an advanced Photographic Portfolio. Students will create a series of original works with conceptual themes and topics. Students will utilize digital photography and photo manipulation software to reflect their understanding of the elements and principles of design. All students enrolled in the class are required to submit a portfolio for review by a committee certified by the College Board for AP credit.

***AP Studio Art Drawing and AP Studio Art Photography are to run concurrently.**

Advanced Placement Art History **7060**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Teacher recommendation and approval of the Fine Arts Director
This course is a chronological study of Art History. It is designed to provide an understanding of architecture, sculpture, painting, and other art forms within diverse historical contexts. Audio-visual presentations, discussions, written work, and museum visits are used to present the curriculum. Upon completion of course work, students will be evaluated on the basis of examination administered in accordance with the College Board Advanced Placement Program guidelines. Credit may be applied to a five-year sequence in art. Students are expected to complete a summer assignment.

Art Pathway

Five Units



prerequisite- Studio in Art
****prerequisite- Ceramics I & II***

AP Art History (1)

BUSINESS
Mrs. Tricia Panasci, Director

Accounting I **6171**
Level of Students: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra I
Accounting is the "language of business" and is a necessary stepping stone for all that are interested in pursuing business careers. This course stresses the principles and procedures needed to build a solid foundation in accounting principles in order for students to become thinkers, decision makers and problem solvers and not merely recorders of information. Accounting software applications will be utilized in this course to provide "real-life" applications.

Wall Street Investments **6181**
Level of Students: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course is designed for students who have a strong interest in business, finance, and economic studies. Students will discover the world of stocks, bonds, mutual funds, retirement options and investing in real estate. The student will explore career opportunities in the financial services industry. The use of current events is stressed and applied to the challenges of investing. Along with practical investment management techniques, an investment simulation will be utilized to provide real-world experience in effective money management and investment portfolio management.

Career Exploration Internship Program **6182**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: Counselor recommendation and Administrative approval
The Career Exploration Internship Program (CEIP) is a school-business partnership initiative that provides high school students the opportunity to learn through hands-on experiences about the skills and education requirements necessary for the career areas in which they have an interest. These experiences assist students in determining their post-secondary education and training needed to reach their college and career goals.

The CEIP offers unpaid career exploration experiences in the business setting. The focus is on hands-on career exploration rather than on skill development. The experience assists students in choosing courses that will help them to reach their college and career objectives. It also assists students in understanding the linkages among school, work, and post-secondary education.

Business Law **6179**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: None
This course is designed to have students learn and apply the fundamental principles behind law that involves an individual's personal and professional life. This course will explore case problems applied to areas of employment law, corporate law, property law and family law. Students have an opportunity to participate in the Suffolk County Sheriff's Office Youth Enlightenment Seminar (YES) Program and visit a correctional facility.

Career & Financial Management **6217**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: None
This course will help students develop skills and strategies to communicate successfully in the corporate/business world. Students will discover the exciting world of business and what it can offer. Students will learn about different segments of business activities such as management, marketing, economics, human relations, career decision making and today's financial investment strategies.

Sports & Entertainment Marketing **6219**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: None
Would you like to be a part of one of the fastest growing college majors and one of the most exciting and lucrative industries of the future? This course is designed for students who have an interest in the sports and entertainment industries and its related careers. Basic marketing principles will be examined and applied through projects and web-based simulations.

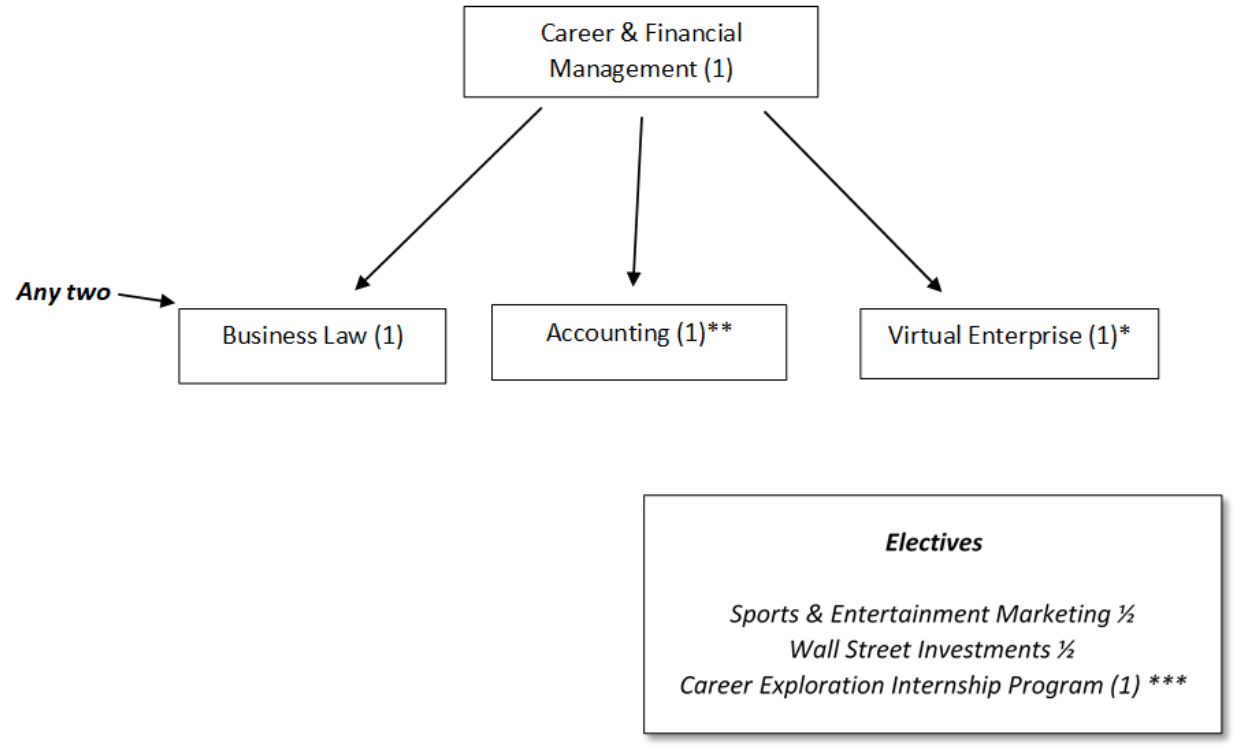
Virtual Enterprise **6221**
Level of Student: Grades 11-12
No. of Credits: 1 / optional college credits through Farmingdale State College – Business 111 (3 credits) and Business 141 (3 credits)
Prerequisite: Successful completion of any Business course
Virtual Enterprise is an in-school national and global entrepreneurship program. The simulated business replicates all of the functions and demands of a real business in both structure and practice, from product development, production and distribution to marketing, sales, human resources, finance and accounting. As "employees" of the virtual business, students are accountable for their company's management and performance. Through a web-based banking system that connects 5,000 student-run businesses in forty countries, Virtual Enterprise students experience the expectations of the global economy and find new solutions to drive business results by trading across industries, borders and cultures.

To further enrich their experience, students participate in a series of extended learning opportunities, including:

- Local Business Plan Competition
- Local Trade Show
- Virtual Enterprise's Global Business Challenge

Business Education Pathway

Three Units



**** Prerequisite- successful completion of a business course***
*****Prerequisite- successful completion of Algebra***
******Prerequisite- counselor recommendation and administrative approval***

COMPUTER SCIENCE
Mr. Andy Matthews, Director

Python Programming I **3596**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course teaches the foundations of computer science and basic programming with an emphasis on helping students develop logical thinking and problem-solving skills. Students will learn the basics of software development, practice algorithms, and research possible careers in the field of computer science. Students will also learn features of the Python 3 language including console interaction, conditionals, loops, and functions.

Python Programming II **3597**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: Successful completion of Python Programming I
This course continues to build an understanding of the Python 3 language with an emphasis on features such as exception handling, string manipulation, and data structures. The course culminates with a study of the programming concepts that enable the use of Artificial Intelligence in computer science and society at large.

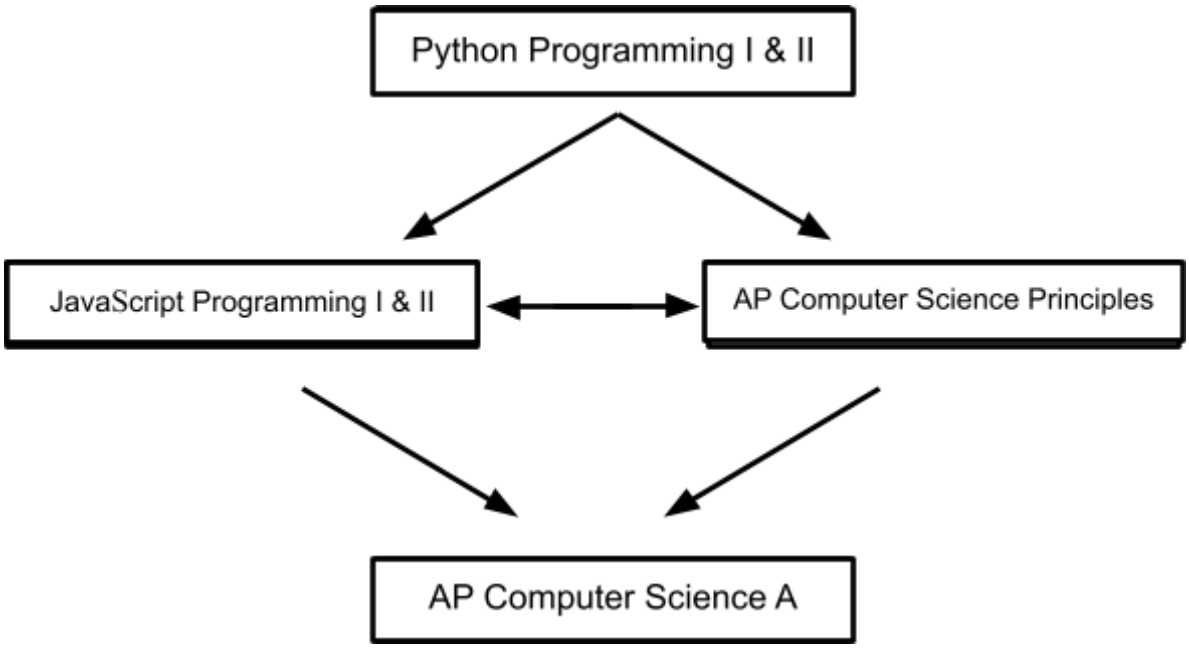
JavaScript Programming I **3598**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: Previous coding experience or Python I & II recommended
This course teaches the foundational concepts of computer science and programming in the JavaScript language through a game application approach. Students will learn features such as control structures and functions while designing and programming games and animations. The course is highly visual, dynamic, and interactive, making it engaging for new and experienced coders.

JavaScript Programming II **3599**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: Successful completion of JavaScript Programming I
This course continues to build an understanding of the JavaScript language with an emphasis on advanced features such as timers, events, and data structures. Students will use elements of game design such as collision detection, background scrolling, and random obstacle generation to plan and build their own game.

Advanced Placement Computer Science A **3573**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of 1 credit of CS (Python Programming I & II, JavaScript Programming I & II, or AP CSP)
This course emphasizes object-oriented programming and design using the Java programming language. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data, and discover new information, the analysis of potential solutions and the ethical and social implications of computing systems. All students enrolled in this course are required to take the Advanced Placement exam in May.

Advanced Placement Computer Science Principles **3595**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra with an 85 average or better
This course introduces students to the foundational concepts of computer science and explores the impact computing and technology have on our society. With a unique focus on creative problem solving and real-world applications, students will learn the features of the Python 3 programming language. They will be given the opportunity to explore several important topics of computing using their own ideas and creativity, use the power of computing to create artifacts of personal value, and develop an interest in computer science that will foster further endeavors in the field. All students enrolled in this course are required to take the Advanced Placement exam in May and expected to submit the required project to the College Board.

COMPUTER SCIENCE PATHWAY



ENGLISH LANGUAGE ARTS
Mrs. Melissa Drewisis, Director

English 9 Regents **1115**
No. of Credits: 1
Prerequisite: Successful completion of English 8
Key emphases are in-depth analyses of literature by structural type and the improvement of written expression, particularly sentence structure, vocabulary, spelling, and clearly defined opinions. An extensive reading program is a significant requirement.

English 10 Regents **1125**
No. of Credits: 1
Prerequisite: Successful completion of English 9
Writing clearly and effectively through analysis, opinion, and description, and organizational methods for research papers are stressed. Relevant English Language Arts and American fiction and nonfiction are studied. Vocabulary development and reading comprehension skills encompass preparation for PSAT/SAT tests.

English 9 & 10 Honors Regents
No. of Credits: 1 **1116-9H / 1126-10H**
Prerequisite: 90% or above average, teacher recommendation, and approval of Director of Humanities
For the advanced student of English Language Arts, the honors program is an enrichment of the Regents Common Core curriculum at each grade level. Students demonstrate superior ability in reading, writing, analyzing, listening skills and individual incentive to work independently and collectively. Students are expected to complete a summer reading assignment.

Comprehensive English Regents **1135**
(English 11 Regents)
No. of Credits: 1
Prerequisite: Successful completion of English 10
This course centers on a study of major American literature. Extensive reading, diversified writing projects, planning and writing a research paper, improvement of both written and oral language skills are included. Preparation for the PSAT/SAT I and English Language Arts Regents in June is covered.

English Lab
- **English 9 Lab Regents** **1184**
- **English 10 Lab Regents** **1185**
- **Comprehensive English 11 Lab Regents** **1186**

Prerequisite: Placement in an ELA lab course is based on recommendations from the teacher, Director of Humanities, and the academic performance of the student
The grade level English Language Arts labs within the English Language Arts Department are designed to support and reinforce classroom instruction as well as support students who would benefit from additional literacy instruction by focusing on strengthening their weaknesses in reading and writing. Labs provide the students with additional time to decipher and analyze information under the careful supervision of an English Language Arts teacher. Labs also act as small forums in which students are able to engage in class discussions and pose questions, not only to the teacher but with their classmates as well. This course will meet every other day.

Advanced Placement Language & Composition **1156**
Level of Student: Grade 11
No. of Credits: 1
Prerequisite: 90% or above average in English 10 Regents Honors, teacher recommendation, and approval of Director of Humanities
This class focuses on analysis of the basic rhetorical modes, using predominantly non-fiction essays from the 18th century to the present. Intense study of English grammar and usage is included, and the major literary works from the English Language Arts III curriculum are also covered. All students enrolled in this course are required to take the Advanced Placement exam in May and the English Language Arts Regents in June. Subsequently, students may earn college credit for this course based on their performance on the Advanced Placement exam. Students are expected to complete a summer reading assignment.

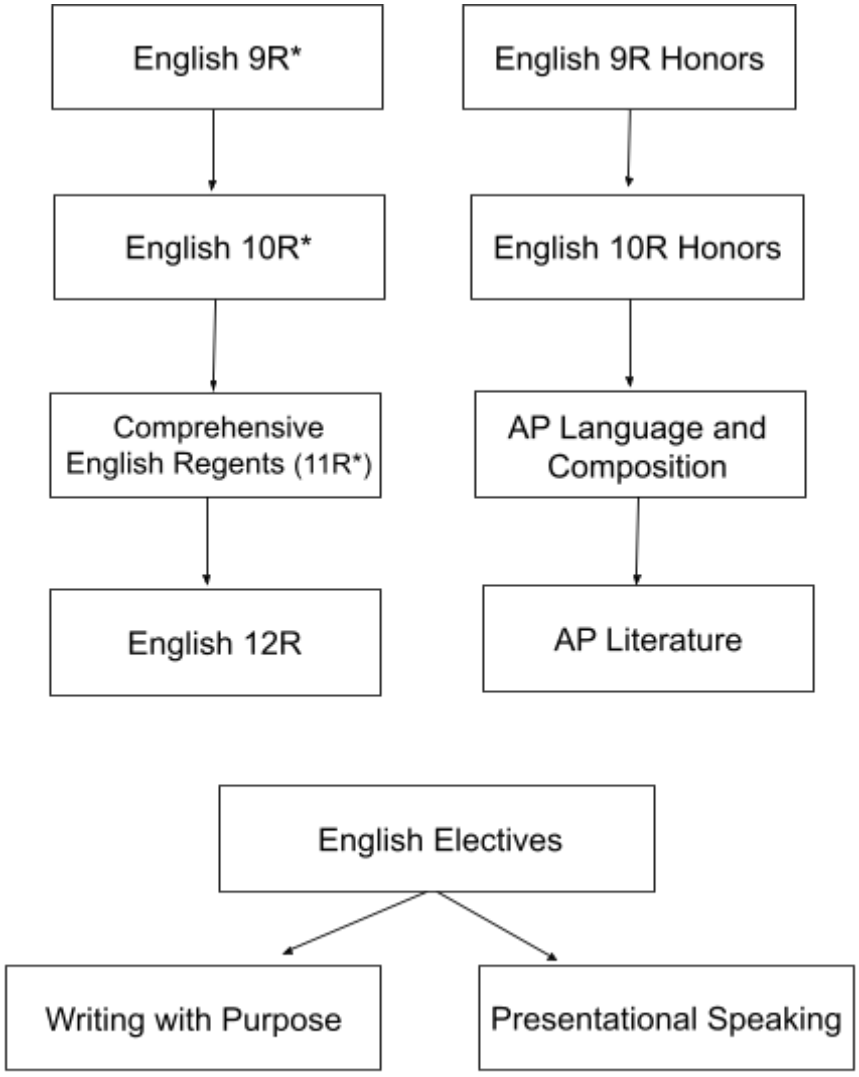
English 12 **1145**
No. of credits: 1
Prerequisite: Successful completion of English 11 Regents
English Language Arts IV is a course for students bound for college or the career world. Students read representative works from World Literature and continue to refine skills in expository writing, language usage, research reporting and oral expression. This course concludes with a final exam.

Advanced Placement English Literature **1157**
Level of Student: Grade 12
No. of credits: 1
Prerequisite: 90% or above average in AP Language & Composition, teacher recommendation, and approval of Director of Humanities
"The Human Condition: Personal Identity and Views of the Cosmos." A college level, in-depth study of literature and composition designed to foster intellectual growth, college preparedness, increased literary appreciation and the ability to interpret and analyze challenging fiction, poetry, essay, and drama of recognized literary merit. Frequent oral presentations are mandatory. It concludes with a comprehensive final examination. All students enrolled in this course are required to take the Advanced Placement exam in May. Students are expected to complete a summer reading assignment.

Writing with Purpose **1275**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: Successful completion of English 10/10H Regents
Students experience a variety of writing styles including creative writing, essay, research reporting, and the college application essay. This course focuses on the writing process, incorporating brainstorming, composing, editing/rewriting and sharing ideas. Progress and assessment of written expression are monitored through group work and teacher conferences.

Presentational Speaking
Level of Student: Grades 11-12 **1326**
No. of Credits: ½
Prerequisite: Successful completion of English Language Arts 10/10H Regents
Presentational Speech is a practical course, which allows students to acquire confidence and poise in speech and discussion. This course is tutorial in nature with the teacher acting as a facilitator, as students refine oral interpretation and persuasive speaking skills, deliver impromptu speeches, special occasion speeches, and explore mass media. Emphasis is on delivery and development of personal style through active participation. Students will learn about the role of communication in our lives, the communication model, delivery styles, and the effectiveness of language, gestures, and organization techniques.

ENGLISH LANGUAGE ARTS



*These courses may include an additional lab class that meets every other day.

FAMILY & CONSUMER SCIENCE
Mrs. Tricia Panasci, Director

Culture and Foods **6484**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course creates a framework for understanding cultural differences and the interdependence of regions and countries around the world. Students are introduced to the American "melting pot" by exploring food heritage and examining how cultures influence American cuisine and learn ecological consequences related to the use of the environment and natural resources. Cultures of South America, Caribbean, Germany, France, Italy, Greece, Africa, and Asia are studied. By experiencing the food, culture, and cooking techniques of major cuisines of the world, students develop appreciation for cultural diversity. Current and projected food service careers are explored.

Food, Nutrition, Health, and Fitness **6480**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course is designed to give students an in-depth study of human nutrition and healthy cooking techniques. Students will explore the concepts of nutrition, diet, exercise to good health, and examine special diets, nutrition for athletes, lifetime fitness, the effects of food preparation on diet, and careers in the field of nutrition.

Applied Food Science **6482**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Two years of high school science
This course is designed to reinforce and enhance the student's knowledge of scientific principles through the study of food and nutrition. An in-depth understanding of science as it applies to foods will assist students in exploring careers in the food industry, as well as in their daily lives. Lab activities involving food preparation will verify the concepts explored. This course can be used to satisfy the requirement for a third year of science. This course is NOT NCAA approved.

Gourmet Foods **6487**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: None
This is an in-depth course in food preparation. Students learn advanced food preparation techniques, the importance of food appearance and presentation, and use of specialized equipment. Weekly lab experiences allow students to experience a wide variety of food preparation. Careers related to food photography, hospitality, food journalism, and food styling are discussed.

Parenting **6486**
Level of Student: Grades 10-12
No. of Credits: ½
Prerequisite: None
This course focuses on identifying concepts of responsible child bearing that every young person should know. The potential parent becomes aware of the need to care for personal health, to practice informed decision making about personal lifestyle, and to form positive ways to meet physical, psychological, and emotional needs. Skills in working with children of all ages are discussed. Further, this course will provide students with opportunities to interact with elementary school students in a teacher/student capacity via the Junior Achievement and Character Education curricula. Subsequently, students will learn to prepare lesson plans of which they will facilitate during five separate visits to the elementary school. Students enrolled in this course are reminded that professional attire is expected for all visits to the elementary school.

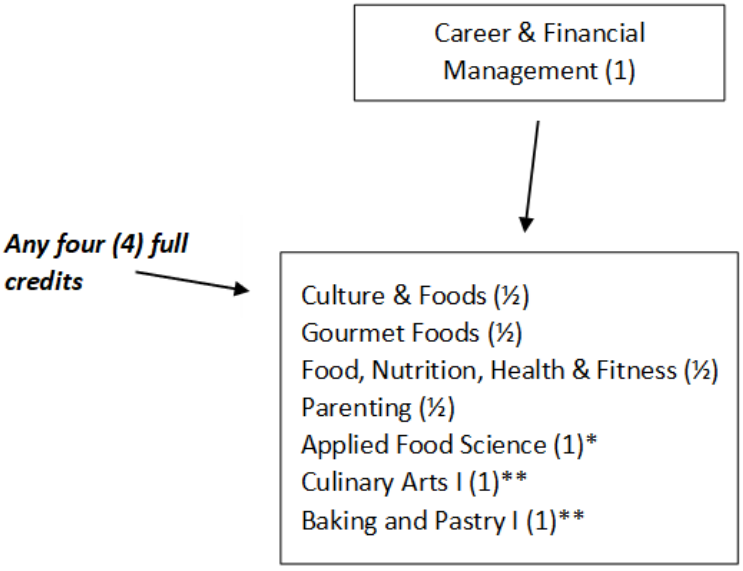
Culinary Arts I **6481**
Level of Student: Grades 11-12
No. of Credits: 1 / Optional College Credits through SUNY Cobleskill – CAHT 111 (3 credits)
Prerequisite: Successful completion of one high school Family & Consumer Science course and teacher recommendation
This course focuses on the principles and practices necessary to effectively perform in a management position in the food service industry. Flow of food through commercial food service operation including purchasing, receiving, storing, fabrication, production and service is examined. Upon successful completion of this course, students are able to understand basic cooking principles and apply them through the standard recipe and menu. Development of effective and efficient managerial skills for commercial or institutional kitchens are presented and practiced. Upon completion of this course, the student will be able to identify the:

- HACCP approach to sanitation with regard to the professional kitchen and chef.
- Different methods of food preparation and their common seasonings and flavorings.
- Components of a standardized recipe and its measurements, portion control, food costing, yield tests and conversion methods
- Different types of menus, nutritional concerns, and methods of cutting foods.
- Procedures for preparing stocks, sauces, and soups.
- Cooking methods of fresh vegetables, grains, legumes & potatoes dishes.
- Preparation methods of various poultry, meats & fish.

BAKING & PASTRY I - College Baking – SUNY Cobleskill CAHT 160 **6490**
Level of Student: Grades 11-12
No. of Credits: **1 H.S. Credit/optional 3 College Credits**
Prerequisite: **Successful completion of one High School Family & Consumer Science class and teacher recommendation**
This course is designed to educate students in the art of Baking and Pastry. This course will take students through various aspects of the industry including: accuracy in measuring and scaling, equipment and their uses, functions of ingredients, and culinary terms. Students will have the opportunity to learn many baking techniques, career opportunities in the industry, the history of baking, and current trends in the industry. Topics which will be covered in this class include sanitation, personal hygiene, dough production, 12 steps of the dough production, quick breads, cookies, candies, confections, donuts/fritters, pies, cakes, icings, piping skills, baking functions of ingredients and their reactions, measuring and scaling accuracy, an array of baking techniques, baking methods, custards, creams, soufflés, mousses, sauces, components of plating desserts, vegan products, and gluten free products.

Family & Consumer Science Pathway

Five Units



**** Prerequisite- successful completion of two years of HS science***
*****Prerequisite- successful completion of one HS Family & Consumer Science cooking class and teacher recommendation***

HEALTH & PHYSICAL EDUCATION
Mr. Scott Reh, Director

Health II **8343**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: None
The high school health curriculum is structured to help students develop a variety of important life skills. These skills will enable them to maintain healthy lifestyles, and build positive, supportive relationships with family and friends. By encouraging listening, critical thinking and assertiveness skills, students will be equipped to deal with an ever-changing world in an effective way.

Topics of study include specific ailments and diseases, national and world health problems, alcohol abuse, STD prevention, AIDS education, drug abuse, family life, sex education, stress in our society, impact of social media, suicide and an overview of mental health and wellness. This course also includes a parenting segment that is consistent with the guidelines set forth by the Commissioner of Education in the Part 100 Regulations.
SUCCESSFUL COMPLETION OF THIS COURSE IS REQUIRED FOR GRADUATION.

Physical Education **8093-Boys P.E.**
Level of Student: Grades 9-12 **8093-Girls P.E.**
No. of Credits: ½ **8093-Adaptive P.E.**
Prerequisite: None
In grades 9-12, all students must successfully complete four years of physical education in order to meet graduation requirements. For each year of successful completion, the student will earn ½ credit. Due to the nature of physical education activities, a change of clothes is required. To be properly prepared for class, a student should wear gym shorts, T-shirt, socks, and sneakers. A warm-up suit or sweat suit may be worn in place of shorts and a T-shirt. The physical education program is designed to offer a wide variety of activities. The purpose of these activities is to enhance the individual's physical awareness, increase physical fitness levels, and introduce lifetime activities.

ACTIVITIES OFFERED

Aerobic Dance	Golf	Softball
Archery	Lacrosse	Table Tennis
Badminton	Physical Fitness Testing	Rip Sticks
Basketball	Pickleball	Ultimate Frisbee
Cooperative games	Pillow Polo	Volleyball
European Team Handball	Project Adventure	Walk for Fitness
Flag Football	Soccer	Weight Training

Grading
A student's physical education grade is based on class preparation, participation, effort, cooperative skills, physical fitness, safety awareness, and skill acquisition. Medical excuses from licensed physicians are accepted for limited participation in physical education class. A passing grade may be achieved under these circumstances if the student successfully completes an alternate assignment to be determined by the teacher.

PHYSICAL EDUCATION ELECTIVES

Weight Training, Fitness & Physical Education **9000**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course is designed to promote full body fitness, both mind and body, through weight training activities and related cardio exercises. Students are expected to design a sound individualized training program based on proper training principles and techniques.

The course will also include the importance of proper nutrition, sport injury prevention and physiological factors as they relate to general fitness. Students will be graded on their levels of participation, test scores, and term paper. This course may be used in lieu of a physical education course.

Project Adventure **8091**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: None
This course is designed to promote the development of four basic skills: communication, trust, decision-making and creative problem solving via participation in Project Adventure activities. In a supportive group atmosphere, students will become involved in a progressive series of activities that involve physical and/or emotional risk. All students will maintain a journal that provides reflections about each activity and the participant's experience. Each activity will be graded using a five-point rubric, which will then be converted to a standard number grade. This course meets or exceeds NYS Learning Standards for Physical Education and may be used in lieu of the required Grades 11 and 12 physical education course. For a fee determined by Adelphi University (approximately $390.00), students may receive two college credits for successful completion of this course.

Introduction to Sports Medicine **8092**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: Successful completion of Living Environment & Living Environment Regents Exam
This course does not fulfill the Health/PE requirement for graduation
The sports medicine course is designed to give eleventh and twelfth grade students, who are interested in health-related fields, the introduction to pertinent information and knowledge with an emphasis on sport related injuries. Students will be presented with the basic concepts of the physiology of exercise, management of psychological stresses in sports activities, and the interrelationship of the major systems of the body with regard to sports activity. Other topics to be covered: anatomical terminology, the human skeletal system, the human muscular system, modalities, common injury, sport specific injury, injury rehabilitation, injury prevention, basics of training and first aid/AED/CPR. Mount Sinai High School is registered with the Adelphi University High School Association Program. For a fee determined by Adelphi University (approximately $315.00), students may receive three college credits for successful completion of this course. This course is NOT NCAA approved.

MATHEMATICS
Mr. Andy Matthews, Director

Algebra 1 Regents **3351**
Level of Student: Grades 9
No. of Credits: 1
Prerequisite: Successful completion of Math 8
Algebra 1 is the first of three NYS Regents courses. The course is designed to integrate algebra, geometry and various branches of mathematics including trigonometry. This course emphasizes the algebraic foundation necessary for students to be fully prepared for higher-level math courses. Further, Algebra 1 will address coordinate geometry including quadratics (graphically and algebraically), statistics and probability. Concepts and skills for utilizing the capabilities of the graphing calculator will also be addressed. At the conclusion of this course, all students are required to take the Algebra I Regents exam.

Algebra 1 Regents Lab **3352A**
Level of Student: Grade 9
No. of Credits: 0
Prerequisite: This class is designed for those students who passed Math 8, but scored a low level 3, level 2, or level 1 on the Grade 8 Math assessment; teacher and MST Director recommendations are required
Algebra 1 is the first of three NYS Regents courses. The course is designed to integrate algebra, geometry and various branches of mathematics including trigonometry. This course emphasizes the algebraic foundation necessary for these students to be fully prepared for higher-level math courses. Further, Algebra 1 will address coordinate geometry including quadratics (graphically and algebraically), statistics and probability. Concepts and skills for utilizing the capabilities of the graphing calculator will also be addressed. This Lab class will meet every other day. The Lab class will reinforce skills taught in the Algebra 1 Regents course.

Geometry Honors Regents **3454**
Level of Student: Grade 9
No. of Credits: 1
Prerequisite: 90% or above average in Algebra 1 (Grade 8) and on the Regents exam, or 95% or above average in Algebra 1 (Grade 9), and 90% or better on the Regents exam with teacher recommendation and approval of MST Director
Geometry is intended to be the second course in mathematics for high school students. Within this course, students will have the opportunity to make conjectures about geometric situations and prove in a variety of ways, both formal and informal, that their conclusion logically supports their hypothesis. Integrating transformational and coordinate approaches to geometry, students will justify geometric relationships and properties of geometric figures. Congruence and similarity of triangles will be established using appropriate theorems. Transformations, including rotations, reflections, translations, glide reflections and coordinate geometry, will be used to establish and verify geometric relationships. A major emphasis of this course is to allow students to investigate geometric situations. Properties of triangles, quadrilaterals, and circles will receive specific attention. It is intended that students will use the traditional tools of the compass and straightedge as well as graphing calculators to assist in these investigations. The enriched honors curriculum will include additional instruction on the graphing calculator as well as open-ended projects. An introduction to matrices will also be included. At the conclusion of this course, all students are required to take the Geometry Regents Exam in June.

Geometry Regents **3481**
Level of Student: Grades 9-10
No. of Credits: 1
Prerequisite: Successful completion of Algebra 1
Students enrolled in Geometry will have the opportunity to make conjectures about geometric situations and prove in a variety of ways, both formal and informal, that their conclusion supports their hypothesis. Integrating transformational and coordinate approaches to geometry, students will justify geometric relationships and properties of geometric figures. Congruence and similarity of triangles will be established using appropriate theorems. Transformations including rotations, reflections, translations, glide reflections and coordinate geometry will be used to establish and verify geometric relationships. A major emphasis of this course is to provide students with opportunities to investigate geometric situations. Properties of triangles, quadrilaterals, and circles will receive specific attention. Students will use the traditional tools of the compass and straightedge as well as the graphing calculator to assist with their investigations. At the conclusion of this course, students are required to take the Geometry Regents exam.

Geometry Regents Lab **3455A**
Level of Student: Grades 10-11
No. of Credits: 0
Prerequisite: Successful completion of Algebra 1 - this course is designed for those students who had difficulty passing Algebra 1 and who struggle with math; recommendations of math teacher, guidance counselor, and MST Director are required
Students enrolled in Geometry will have the opportunity to make conjectures about geometric situations and prove in a variety of ways, both formal and informal, that their conclusion supports their hypothesis. Integrating transformational and coordinate approaches to geometry, students will justify geometric relationships and properties of geometric figures. Congruence and similarity of triangles will be established using appropriate theorems. Transformations including rotations, reflections, translations, glide reflections and coordinate geometry will be used to establish and verify geometric relationships. A major emphasis of this course is to provide students with opportunities to investigate geometric situations. Properties of triangles, quadrilaterals, and circles will receive specific attention. Students will use the traditional tools of the compass and straightedge as well as the graphing calculator to assist with their investigations. This Lab class will meet every other day. The Lab class will reinforce skills taught in the Geometry Regents course.

Algebra 2 Regents **3339**
Level of student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra 1 and Geometry with an 80% or better course grade in each and 80% passing Regents exams scores and/or 85% or better course grade in Advanced Algebra
Algebra 2 is the capstone course of the three units of credit required for an Advanced Regents Diploma. This course is a continuation and extension of the two courses that preceded it. This course prepares students for Pre-Calculus, College Statistics and/or Advanced Placement Statistics. At the conclusion of this course, all students are required to take the Algebra 2 Regents in June.

The Algebra 2 course is a VERY difficult course. If your child is not willing to give 100% effort both in and out of the classroom on a regular basis, they will have an extremely difficult time being successful in this course. Make sure they are willing to put forth the needed effort before requesting to enroll in this course.

Algebra 2 Regents with Lab **3489 / Lab 3489A**
Level of student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra 1 and Geometry courses with a 75% or better course grade in each and 75% Regents exam scores
Algebra 2 is the capstone course of the three units of credit required for an Advanced Regents Diploma. This course is a continuation and extension of the two courses that preceded it. This course prepares students for Pre-Calculus, College Statistics and/or Advanced Placement Statistics. This course includes a lab period every other day. At the conclusion of this course, all students are required to take the Algebra 2 Regents exam in June.

The Algebra 2 course is a VERY difficult course. If your child is not willing to give 100% effort both in and out of the classroom on a regular basis, they will have an extremely difficult time being successful in this course. Make sure they are willing to put forth the needed effort before requesting to enroll in this course.

Algebra 2 Honors Regents **3490**
Level of Student: Grade 10
No. of Credits: 1
Prerequisite: 90% or above average in Geometry Honors or 95% or above average in Geometry Regents; teacher recommendation and approval of MST Director
Algebra 2 is the capstone course of the three units of credit required for an Advanced Regents Diploma. This course is a continuation and extension of the two courses that preceded it. The Honors course will require students to cover topics in greater depth. The enriched and expanded curriculum may include additional projects/assignments as part of the course. This course prepares students for Pre-Calculus Honors, College Statistics and/or Advanced Placement Statistics. At the conclusion of this course, all students are required to take the Algebra 2 Regents exam in June. Students are expected to complete a summer assignment.

Advanced Algebra **3492**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra 1 and must have been enrolled in Geometry
Emphasis is on strengthening and extending algebra and geometry problem solving skills. It will develop and master advanced algebraic skills such as solving systems of equations, understanding properties of higher degree polynomials including roots and end behaviors, exploring exponential and rational functions algebraically and graphically, investigating series and sequences, and using trigonometric applications to solve real world problems. This course is designed for students who plan to attend college.

Probability & Statistics **3456**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra 1 and Geometry
The theory of probability is used to develop methods of statistical inference, confidence intervals, and decision theory. Topics include measures of central tendency, common statistical measures, frequency tables/graphs, probability, distributions, hypothesis testing, and field surveys. This course is useful for students planning to major in social sciences, health sciences or business.

Pre-Calculus **3483**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra 2 and Regents exam
Pre-Calculus is the traditional fourth-year course in high school mathematics. Sequence topics studied include factoring, rational expressions, functions (polynomial, rational, exponential, and logarithmic), polynomial equations, linear programming, sequences, series, and polar coordinate formats. With a strong emphasis on graphing and interpreting the graphs of functions, this course concludes with a formal introduction to the calculus topics of limits and differentiation.

Pre-Calculus Honors **3482**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Algebra 2 Honors with a course grade of 90% or better and an 85% or better on Regents exam, or recommendations of teacher and MST Director, or successful completion of Algebra 2 with a course grade of 95% or better and an 85% or better on Regents and recommendations of teacher and MST Director are required
The formal study of elementary mathematical functions is extended in this course. Students apply technology, modeling, and problem-solving skills to the study of advanced trigonometry, logarithms and polynomial functions. Problem simulations are explored in multiple representations—algebraic, graphic, and numeric. The concept of limit is applied to all functions. The formal definition of limit is applied to proofs of the continuity of functions and to the definition of a derivative. The techniques of differentiation are addressed as well as the applications of related rates, polynomial and rational curve sketching and optimization problems (applied min/max). In addition, various integration techniques are introduced. Students who successfully complete this course will enroll in Calculus, Advanced Placement Calculus AB or Advanced Placement Calculus BC the subsequent school year.

Calculus **3447**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: Successful completion of Pre-Calculus
Calculus is the first course in any traditional calculus sequence. This course is for students wishing to pursue any field of secondary education. The course will develop two new math operations, differentiation and integration, to go with the four basic operations known in math (addition, subtraction, multiplication and division). Students must be well prepared in Pre-Calculus skills, particularly algebra, trigonometry, and logarithms.

Financial Mathematics **3486**
Level of Students: Grades 11-12
No. of Credits: 1
Prerequisite Successful completion of Algebra 1 and the Regents exam and have taken Geometry; recommendations of math teacher, guidance counselor, and MST Director are required
Learn about financial responsibilities including money management strategies as they relate to mathematics. Students will explore ways to maximize earning potential and manage their money including salary, benefits, taxes, and banking. Students will gain insight into investing money (including stocks, bonds, mutual funds, real estate, and retirement planning) and acquire essential skills for the wise use of credit, including managing credit and debt. Develop strategies for managing resources and personal risks, including renting, buying a house or a car, family decisions and insurance. This course is NOT NCAA approved.

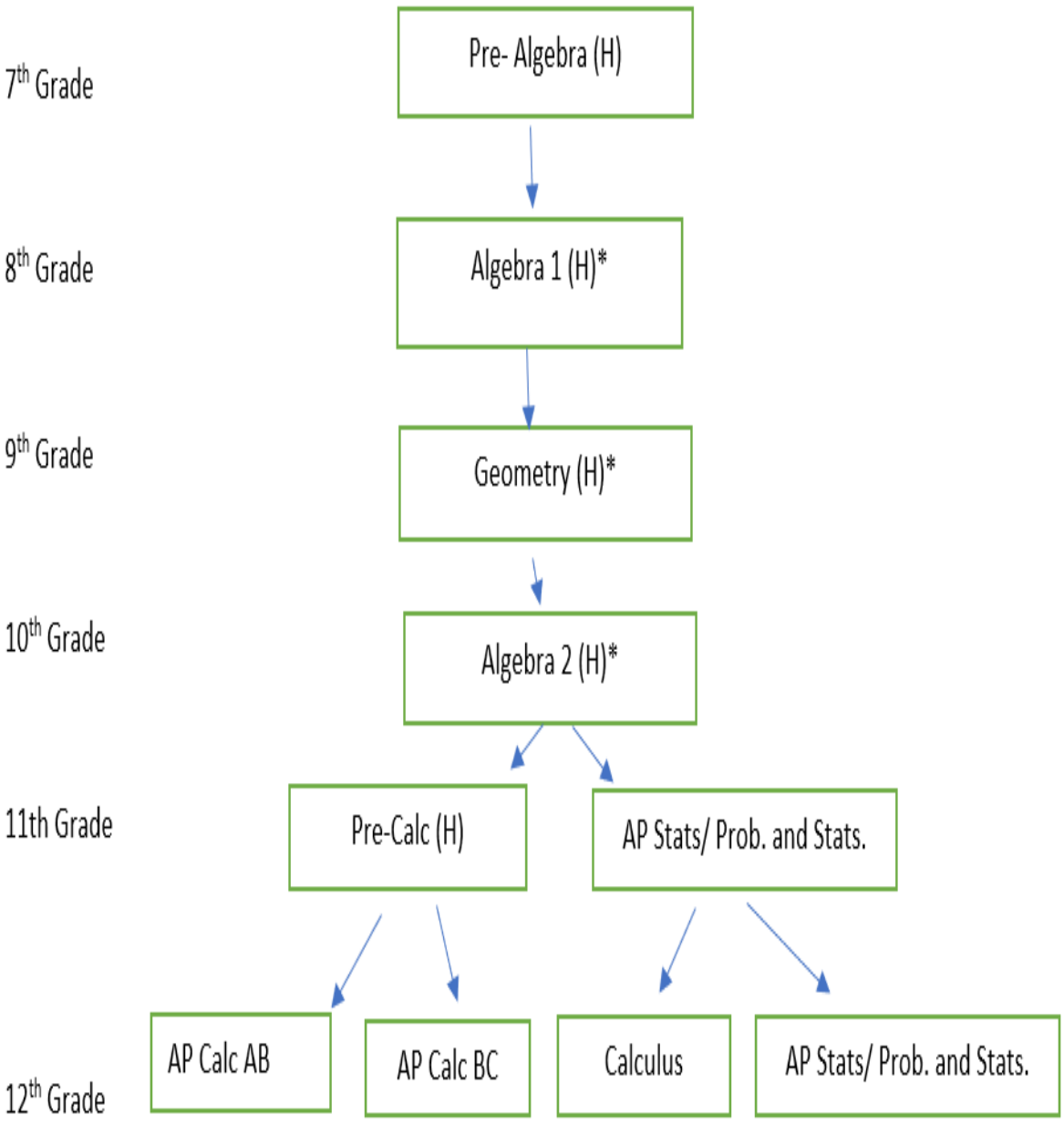
Advanced Placement Calculus AB **3448**
Level of Student: Grades 12
No. of Credits: 1
Prerequisite: Successful completion of Pre-Calculus Honors with a course grade of 90% or above or teacher recommendation and approval of MST Director
This course is designed to prepare students for the Advanced Placement exam in May. The topics consist of differential and integral calculus, functions, and analytical geometry. All students enrolled in this course are required to take the Advanced Placement exam in May. Students are expected to complete a summer assignment.

Advanced Placement Calculus BC **3450**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: Successful completion of Pre-Calculus Honors with a course grade of 95% or above; teacher recommendation and approval of MST Director are required
Advanced Placement BC Calculus is a more advanced course. The course will include a brief review of differentiation and integration with new applications being incorporated throughout. In addition, polynomial approximations (converging and diverging series and Taylor series) will be a large part of the coursework. All students enrolled in this course are required to take the Advanced Placement exam in May. Students are expected to complete a summer assignment.

Advanced Placement Statistics **3476**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of, or currently enrolled in one or more of the following: Algebra 2 Honors, Pre-Calculus Honors, Pre-Calculus, Calculus, A.P. Calculus, or Algebra 2; teacher recommendation and approval of MST Director are required
Statistics is the science of summarizing and drawing conclusions from the data collected by researchers. The theory of probability is used to develop methods of statistical inference, confidence intervals, and decision theory. Topics include measures of central tendency, common statistical measures, frequency tables/graphs, probability, distributions, hypothesis testing, and field surveys. This course is useful for students planning to major in social sciences, health sciences or business professionals in such diverse fields as economics, engineering, sociology, education, business management and virtually all the sciences that rely on statistics to make important decisions about their work. Hence, statistics is the math course most often required of college students. All students enrolled in this course are required to take the Advanced Placement exam in May. Students are expected to complete a summer assignment.

MATH

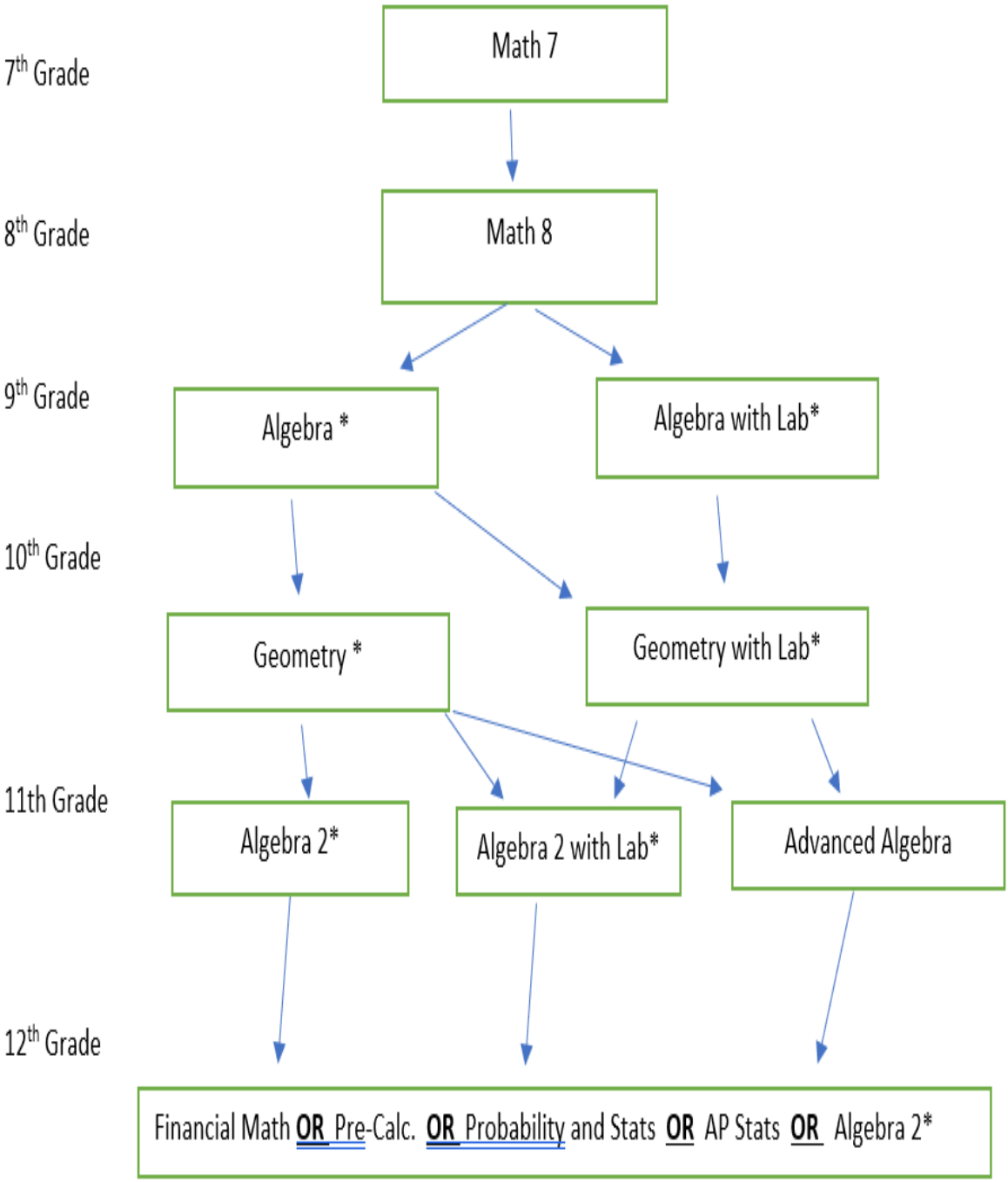
Pathway 1



*Required for an Advanced Regents Diploma

MATH

Pathway 2



*Required for an Advanced Regents Diploma

MUSIC
Mrs. Tricia Panasci, Director

Chorus **7671**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: Enrollment is selective and based on audition or previous choral experience
The chorus performs at several concerts throughout the school year. In preparation for these performances, students are instructed in proper vocal technique, and are exposed to all styles of vocal music. In addition to the daily full-group rehearsal, students will also receive one sectional rehearsal per week, held on a rotating basis. Attendance at all performances and rehearsals deemed necessary by the instructor and school administration is mandatory. This course satisfies the New York State requirement for one year of fine arts at the high school level.

Band
Level of Student: Concert Band (Grades 9-10) **7870**
Symphonic Band (Grades 11-12) **7871**
No. of Credits: 1
Prerequisite: Enrollment is selective and based on audition or previous band experience
The band performs at several concerts throughout the school year. In preparation for these performances, students are exposed to all types of music. An integral part of the band program is the weekly sectional rehearsal where like instruments meet on a rotating basis. Attendance at all performances and rehearsals deemed necessary by the instructor and school administration is mandatory. This course satisfies the New York State requirement for one year of fine arts at the high school level. Some ninth and tenth grade students will be placed in the Symphonic Band based on lesson attendance, performance grades, NYSSMA Solo mastery and work ethic.

Orchestra
Level of Student: String Orchestra (Grades 9-10) **7876**
Concert Orchestra (Grades 11-12) **7877**
No. of Credits: 1
Prerequisite: **Enrollment is selective and based on audition or previous orchestra experience**
The orchestra performs at several concerts throughout the school year. In preparation for these performances, students are exposed to various types of music. An integral part of the program is the weekly sectional rehearsal where similar instruments meet on a rotating basis. Attendance at all performances and rehearsals deemed necessary by the instructor and school administration is mandatory. This course satisfies the New York State requirement for one year of fine arts at the high school level. Some ninth and tenth grade students will be placed in the Concert Orchestra based on lesson attendance, performance grades, NYSSMA Solo mastery and work ethic.

Jazz Ensemble **7873**
Level of Student: Grades 9-12
No. of Credits: ½ Pass/Fail
Prerequisite: Enrollment is selective and based on audition or invitation of the instructor
The Jazz Ensemble performs at several concerts throughout the school year, both in school and at the SCMEA Jazz Festival. Students will study all styles of contemporary music and learn the fundamentals of improvisation. Attendance at all performances and rehearsals, which are held outside the school day, is mandatory. Credit from participation in the Jazz Ensemble does not satisfy the New York State requirement in fine arts and may not be applied toward a five-year music sequence.

Jazz Choir **7673**
Level of Student: Grades 9-12
No. of Credits: ½ Pass/Fail
Prerequisite: Enrollment is selective and based on audition or invitation of the instructor
The Jazz Choir performs at several concerts throughout the school year, both in school and at the SCMEA Jazz Festival. Students study all styles of contemporary music and learn the fundamentals of improvisation. Attendance at all performances and rehearsals, which are held outside the school day, is mandatory. Credit from participation in the Jazz Choir does not satisfy the New York State requirement in fine arts, and it may not be applied toward a five-year sequence in music.

Chamber Orchestra **7973**
Level of Student: Grades 9-12
No. of Credits: ½ Pass/Fail
Prerequisite: Enrollment is selective and based on audition or invitation of the instructor
Chamber Orchestra performs at several concerts throughout the school year. Students study all styles of music, with an emphasis on music for small string ensembles. Attendance at all performances and rehearsals, which are held outside the school day, is mandatory. Credit from participation in the Chamber Orchestra does not satisfy the New York State requirement in fine arts, and may not be applied toward a five-year sequence in music.

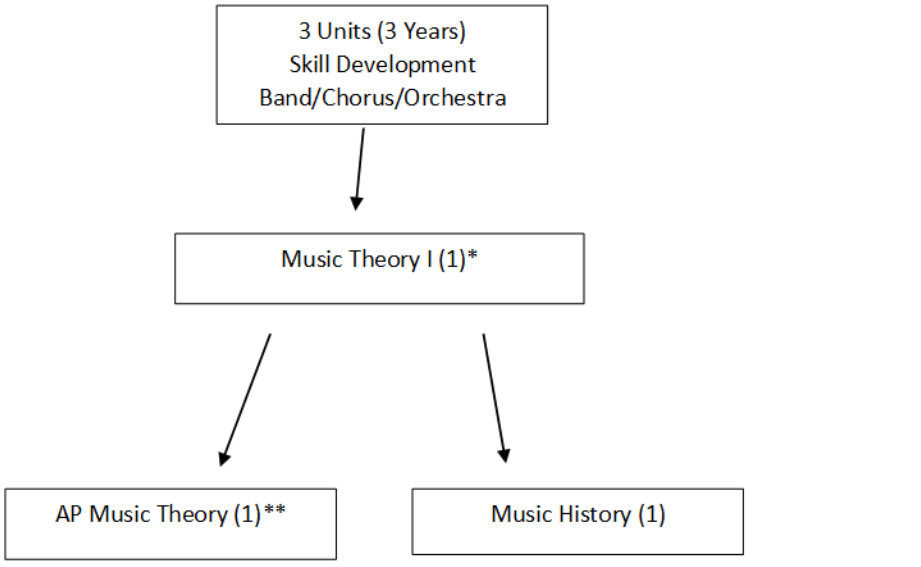
Music History **7774**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: None
This course is designed to give the student an in-depth study of music history from antiquity to the present day. Students will use the elements of music to study selected compositions from all eras, as well as important historical events and their impact on the development of musical styles. Credit from the successful completion of this course may be applied to the five-year sequence in music.

Music Theory I **7772**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: Recommendation of Music teacher & Director of Music
This course is designed to enrich students with knowledge of basic music theory through the study of rhythm and notation, scales, chords, ear training, and music dictation. Credit from the successful completion of this course may be applied to the five-year sequence in music.

Advanced Placement Music Theory II **7773**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Music Theory I
This course is designed for the music major or music student seeking advanced work in music theory. The course is designed as a continuation of Music Theory I, with greater emphasis placed on chord progression, modulation, ear training, as well as melodic and harmonic diction. Credit from the successful completion of this course may be applied to the five-year sequence in music. All students enrolled in this course are required to take the Advanced Placement exam. Students are expected to complete a summer assignment.

Music Pathway

Five Units



Electives*

Jazz Band (½)
Jazz Choir (½)
Chamber Orchestra (½)

**** Prerequisite- Recommendation of Music Teacher and Director of Music***
*****Prerequisite- Successful completion of Music Theory I***
******Enrollment based on audition***

SCIENCE
Mr. Andy Matthews, Director

Physical Setting/Earth Science Regents/Lab **4571**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: Successful completion of grade 8 Science
This course fulfills the ninth grade Regents science requirement. Areas of study include energy and measurement, properties of earth materials such as rocks, water and air, measuring the Earth, motions of the Earth, deep space, meteorology, erosion, environmental problems, and geologic history. This course meets 7½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam.

Living Environment/Biology Regents/Lab **4130**
Level of Students: Grades 9-12
No. of Credits: 1
Prerequisite: Successful completion of Earth Science with a passing Regents exam grade
Students engage in studies dealing with the biochemical nature of living organisms, life functions in living organisms, reproduction and development, human physiology, genetics, evolution theory, and ecology. Students enrolled in this course are involved in a variety of laboratory studies. This course meets 7 ½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam.

Living Environment/Biology Honors Regents/Lab **4154**
Level of Students: Grade 9
No. of Credits: 1
Prerequisite: 90% or above average in Earth Science and the Regents exam; teacher recommendation, and approval of MST Director
This challenging and enriched course will focus on the biochemical nature of living organisms, life functions in living organisms, reproduction and development, human physiology, genetics, evolution theory, and ecology in much greater depth than the regular Living Environment/Biology course. Intensive laboratory work, scientific journal readings, and a research project are required. This course will prepare students for the Living Environment Regents exam in June and the Advanced Placement Biology course in the future. This course meets 7 ½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam.

Physical Setting/Chemistry Regents/Lab **4135**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Living Environment and a passing Regents exam grade
This course deals with the study of matter, and changes in the composition of matter. It is a lab science actively involving students in investigation and scientific inquiry in an attempt to increase awareness of the importance of Chemistry in their lives. This course meets 7½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam.

Physical Setting/Chemistry Honors Regents/Lab **4152**
Level of Student: Grades 10-11
No. of credits: 1
Prerequisite: 90% or above average in Living Environment Honors and Regents exam, or 95% or above in Living Environment, with 90% or above on the Regents exam; teacher recommendation and approval of MST Director
This challenging Chemistry course is a preparatory course for Advanced Placement Chemistry. The enriched and expanded curriculum, taught through demonstration, lecture, and hands-on laboratory experiences, utilizes computers and technology and requires a comprehensive mathematical background. This course will prepare students for the June Chemistry Regents examination and the SAT II. This course meets 7½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam.

Physical Setting/Physics Regents/Lab **4145**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Chemistry with a passing Regents exam grade
Physics course is primarily for the college bound student who will take college science. The course stresses practical aspects of physical laws and theory. The basic method of presentation is lecture and discussion with closely related lab activities. Main topics are mechanics, energy, electricity, magnetism, wave phenomena, and modern physics. This course meets 7½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam. Students are expected to complete a summer assignment.

Physical Settings/Physics Honors Regents/Lab **4156**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: 90% or above average in Chemistry Honors, or 95% or above average in Chemistry, and 85% or above average in Algebra 2; teacher recommendation and approval of MST Director
This is a challenging Physics course. The enriched and expanded curriculum, taught through demonstration, lecture, and hands-on laboratory experiences, utilizes computers and technology, and requires a comprehensive mathematical background. This course will prepare students for the June Physics Regents examination, and the SAT II. This course meets 7½ periods per week and concludes with a Regents exam in June. Successful completion of the lab program, consisting of 30 hours (minimum) of lab activities and a satisfactory written report, is required for admission to the Regents exam. Students are expected to complete a summer assignment.

Laboratory Assistant **4173**
Level of Student: Grades 11-12
No. of Credits: 0
Prerequisite: Successful completion of at least one AP Science course; approval of cooperating teacher and MST Director
Students interested in science and/or science education as a possible career choice may earn credit working with a science teacher as a laboratory assistant. The student is responsible for a variety of tasks including lab set-up and clean-up, monitoring long-term experiments, and clerical and managerial tasks. Students meet five times a week and are graded on a *Pass* or *Fail* basis.

Coastal Ecology / Marine Ecology **4781**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisites: Successful completion of Living Environment and a passing grade on the Regents Exam
This is an introductory study of the biological, physical, and chemical aspects of the marine environment. Emphasis is on oceans of the world and local marine habitats including the study of salt marshes, estuaries, bays, and shorelines. Students use oceanographic scientific data to study and integrate all areas of marine science and are required to complete quarterly reports on a term project. This course meets five days a week and concludes with a final examination.

Human Anatomy & Physiology **4786**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisites: 90% or above average in Living Environment Regents, 85% or above average in Chemistry and an AP Science (can be concurrent)
This is a comprehensive course devoted to the study of the structure and function of the human body. In addition to learning how our bodies normally work, we will study the many diseases and disorders with each system. This course is intended to prepare students for college biology or pre-profession, including medicine, veterinary medicine, physical and occupational therapies, nursing, cancer research, biotechnology, and molecular biology

Forensic Science **4483**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: None
This is a one-year course covering Forensic Science. Course curriculum integrates the history of forensics, observations skills, basics of forensics, and methods used in criminal investigation. Topics will include fingerprinting, ballistics, DNA typing, serology, trace evidence, voice printing, toxicology, pathology, forensic anthropology, odontology, and psychological profiling.

College Forensics Honors/Lab **4484**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: 85% or above average in both Living Environment and Chemistry and Regents exams; teacher recommendation and approval of MST Director
The course will provide instruction related to the science behind crime detection using scientific method and analysis. Laboratory emphasis will be placed upon techniques used in evaluating physical, organic and inorganic evidence. Such topics as DNA evidence, hair and blood analyses, fingerprints, and drug chemistry and toxicology are among the many laboratory exercises that will introduce techniques commonly used in forensic investigations. Students will be evaluated based on their exams, laboratory writing, and comprehensive final exam. Students enrolled in this course will have the opportunity to receive four (4) college credits through Syracuse University (Chemistry 113). Please see page 42 for more details. Students are expected to complete a summer assignment.

Advanced Environmental Science **4788**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: 80% or above average in Earth Science and Living Environment; students must also have completed or be enrolled in Chemistry
In a project-based format, students in this course will explore current events relating to the impact of natural and human-made pressures on the environment, including the management of natural resources and the impact of population growth on environmental systems. Students will apply scientific processes to hands-on research activities while learning proper data collection and analysis, and the importance of responsible conclusions.

Advanced Placement Biology/Lab **4248**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: 85% or above average in Living Environment and Chemistry with teacher recommendation and approval of MST Director
This course is the equivalent of a college level introductory biology course. Students are expected to have a thorough knowledge of the curricula covered in Living Environment and Chemistry. Major topics studied in this course include: Diversity and Evolution of Life, Biochemistry, Cell and Organism Biology, Molecular Biology and Genetics, and Ecology. Students are evaluated based on exam performance, laboratory, and writing units on each topic in this course. This course meets 7½ periods per week and concludes with a final exam. All students enrolled in this course are required to take the Advanced Placement exam in May. Students enrolled in this course will also have the opportunity to receive eight (8) college credits through Syracuse University (Biology 121 and Biology 123/124). Please see page 42 for more details. Students are expected to complete a summer assignment.

Advanced Placement Chemistry/Lab **4249**
Level of Student: Grades 11-12
No. of credits: 1
Prerequisite: 95% or above average in Chemistry or 90% or above average in Chemistry Honors with teacher recommendation and approval of MST Director
The Advanced Placement Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year, and students use a contemporary college text. Major topics studied in this course include: Atomic Structure, Periodic Table, Bonding, Gases, Kinetic Molecular Theory, Phases of Matter, Solutions, Kinetics Equilibrium, Acid-Base Chemistry, Thermo-Chemistry, Electrochemistry, Nuclear Chemistry, and Organic Chemistry. Students are evaluated based on exam performance, laboratory, and individualized chemistry writing units in the course. This course, with a strong emphasis on math, is recommended for students pursuing careers in science, medicine, and engineering. This course meets 7½ periods per week. All students enrolled in this course are required to take the Advanced Placement exam in May. Students enrolled in this course will also have the opportunity to receive eight (8) college credits through Syracuse University (Chemistry 106/107 and Chemistry 116/117). Please see page 42 for more details. Students are expected to complete a summer assignment.

Advanced Placement Environmental Science/Lab **4777**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: 80% or above average in Earth Science and Living Environment and teacher recommendation and approval of MST Director; students must also have completed or be enrolled in Chemistry
Designed for students with special problem-solving interests in science, this course equals a one-semester introductory college course in environmental science. Using primarily laboratory and field studies, students analyze the interrelationships of natural systems on Earth, evaluate risk, and examine alternative solutions for both man-made and natural environmental problems. Field trips and reports are mandatory. This course meets 7½ periods per week. A comprehensive final exam concludes the course. All students enrolled in this course are required to take the Advanced Placement exam in May. Students enrolled in this course will also have the opportunity to receive four (4) college credits through Syracuse University (Earth System Science: EAR 203). Please see page 42 for more details. Students are expected to complete a summer assignment.

Advanced Placement Physics I/Lab **4142**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: 90% or above average in Chemistry Honors and 90% or above average in Algebra 2, and/or teacher recommendation and approval of MST Director
AP Physics I is an algebra-based physics course analogous to a first-semester college physics course in mechanics. It will cover Newtonian mechanics, including rotational dynamics and angular momentum, work, energy, power, mechanical waves and sound. Electric circuits will be introduced and topics in modern physics will be covered so that students will be prepared to take the AP Physics I exam in May and the physics Regents exam in June. Students will take part in inquiry-based laboratory experiments and explore physics concepts hands-on, strengthening scientific problem-solving skills. This course has a strong emphasis on math and is recommended for students pursuing careers in science, medicine and engineering. This course meets 7 ½ periods per week. All students enrolled in this course are required to take the Advanced Placement exam in May and the Physics Regents exam in June. Students are expected to complete a summer assignment.

Advanced Placement Physics II/Lab **4138**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: Successful completion of AP Physics I
AP Physics II is an algebra-based physics course analogous to a second-semester college physics course in electromagnetism. It will cover thermodynamics, fluid statics and dynamics, electrostatics, DC circuits and RC circuits, magnetism and electromagnetic induction, geometric and physical optics, and quantum physics, atomic and nuclear physics. Students will take part in inquiry-based laboratory experiments and explore physics concepts hands-on, strengthening scientific problem-solving skills. This course has a strong emphasis on math and is recommended for students pursuing careers in science, medicine and engineering. This course meets 7 ½ periods per week. All students enrolled in this course are required to take the Advanced Placement exam in May. Students are expected to complete a summer assignment.

New York State Laboratory Requirement
All commencement-level science courses, including specialized courses, must include laboratory activities. Students who take commencement-level science courses based on New York State's science core curricula (Living Environment, Physical Setting/Earth Science, Physical Setting/Chemistry, and Physical Setting/Physics) must successfully complete the State-mandated laboratory requirement. Completion of this requirement includes 1200 minutes of hands-on laboratory experience with satisfactory laboratory reports and prepares students for the corresponding Regents examination in science. Students must pass one Regents examination in science [100.5(a)(5)(i)(d)(3)].

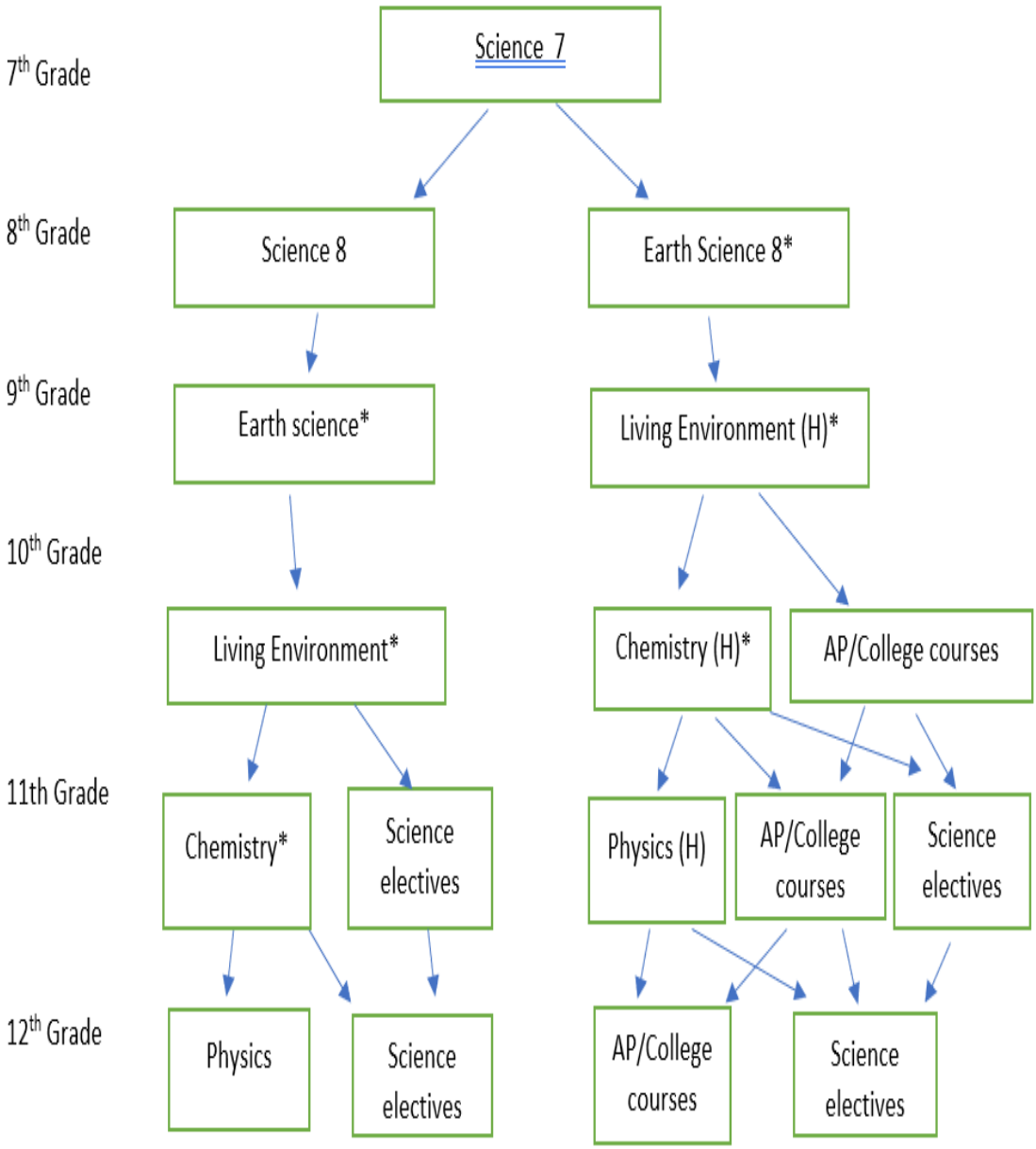
Syracuse University Project Advance

Syracuse University Project Advance (SUPA) is a partnership between Syracuse University and Mount Sinai High School. Through this partnership, Mount Sinai High School offers qualified students the opportunity to enroll in Syracuse University courses for credit. All Syracuse University courses offered through Project Advance are regular offerings in the college and schools of Syracuse University. Syracuse University recognizes these courses as regular offerings and upon successful completion of Syracuse University courses offered through Project Advance students earn Syracuse University credit, verified by an official Syracuse University transcript. For a fee determined by Syracuse University (approximately $115.00 per credit), students may receive college credits for successful completion of these courses. There is no guarantee other colleges and universities will accept these credits for transfer. Mount Sinai offers the following Project Advance Courses in the Science department:

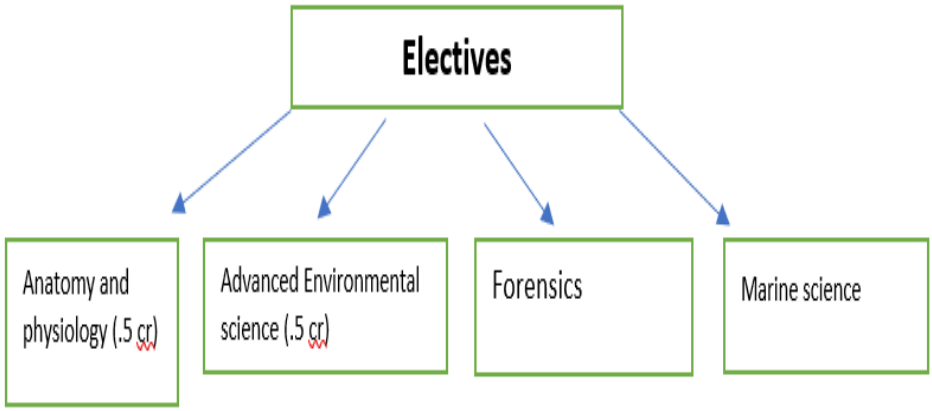
- Advanced Placement Biology (Biology 121 and Biology 123/124)
  (Students can earn eight (8) college credits.)
- Advanced Placement Chemistry (Chemistry 106/107 and Chemistry 116/117)
  (Students can earn eight (8) college credits.)
- College Forensics Honors (Chemistry 113)

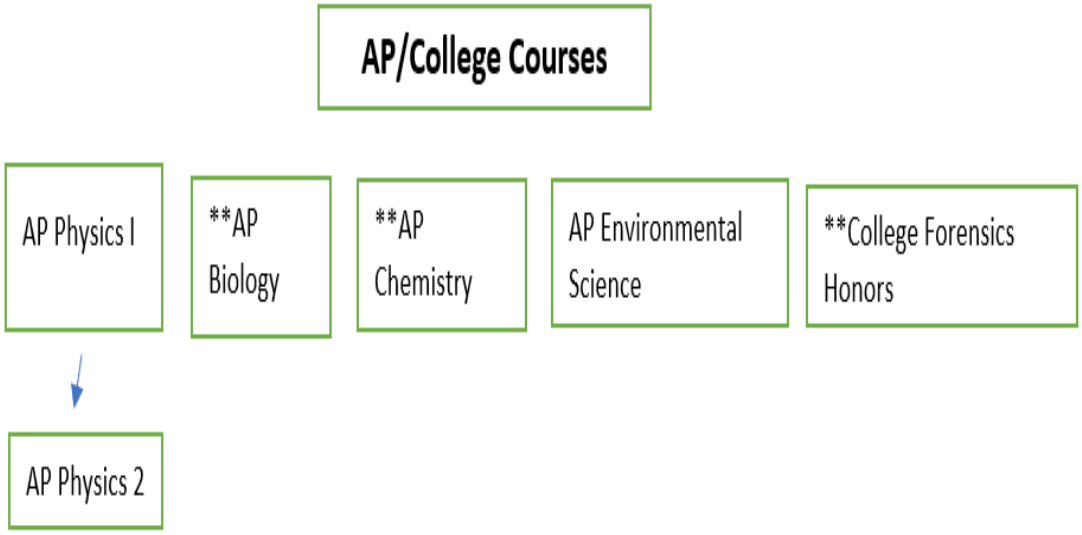
Science

Pathway



***Required for an Advanced Regents Diploma**





****May be taken as a college course through Syracuse University**

SOCIAL STUDIES
Mrs. Melissa Drewisis, Director

Global History 9 Regents **2015**
No. of Credits: 1
Prerequisite: Successful completion of Social Studies 8
This course presents a chronological study of the history, geography, economics, politics, and culture of the world from ancient times to 1750. It begins with early people and civilizations and proceeds through the development of belief systems, the growth of empires in Asia, Africa, Europe, Latin America, and the Age of Absolutism. This is the first part of a two-year Global History course. It concludes with a final exam.

Global History 10 Regents **2226**
No. of Credits: 1
Prerequisite: Successful completion of Global History 9
This course is the second part of a two-year study of Global History, continuing the chronological study of the history, geography, economics, politics, and culture of the world from 1750 through modern times. The course aims to provide students with cultural and historical views of Asia, Africa, Europe, and Latin America. All students enrolled in this course are required to take the Global History and Geography Regents exam in June.

Advanced Placement World History I **2277**
Level of Student: Grade 9
No. of Credits: 1
Prerequisite: 90% or above average in Social Studies 8 Honors and English 8; teacher recommendation and approval of Director of Humanities
This course is the first of a two-year sequence in college-level World History and Geography in preparation for the Advanced Placement World History and Geography exam administered in students' sophomore year. The course considers the global processes, social connections, global frameworks, and cross-cultural comparisons endemic to an understanding of World History. This course will offer an in-depth examination of philosophy, religion, art, literature, and geography of various cultures. Interpretive and analytical skills will be emphasized. It concludes with a final exam. Students are expected to complete a summer assignment.

Advanced Placement World History II **2278**
Level of Student: Grade 10
No. of Credits: 1
Prerequisite: 80% or above average in Advanced Placement World History I; teacher recommendation and approval of the Director of Humanities

This course is the second of a two-year sequence in college level World History and Geography in preparation for the Advanced Placement World History and Geography exam. The course considers the global processes, social interactions, international frameworks, and cross-cultural comparisons endemic to an understanding of World History. This course will offer an in-depth examination of modern politics, economics, philosophy, technology, and society and of cross-cultural comparison. Interpretive and analytical skills will be emphasized. All students enrolled in this course are required to take the Advanced Placement exam in May and the Global History and Geography Regents exam in June. Students are expected to complete a summer assignment.

United States History and Government 11 Regents **2135**
No. of Credits: 1
Prerequisite: Successful completion of Global History 10 and Regents exam
The eleventh-grade program teaches students the structure and function of government as well as the basic principles of cultural heritage upon which our nation was founded. It begins with the roots of Colonial America and ends with the present administration. The course will develop students' understanding that people throughout history have interacted with each other and their governments. All

students enrolled in this course are required to take the United States History and Government Regents in June.

Advanced Placement United States History & Government **2273**
Level of Student: Grade 11
No. of Credits: 1
Prerequisite: 90% or above average in Grade 10 Social Studies; teacher recommendation and approval of the Director of Humanities
A chronological study of U.S. History, this course emphasizes interpretation and analysis of material by contemporary and modern historians. Students admitted to this course will have demonstrated a high level of success in previous social studies course work and outstanding ability in both writing and research. Eleventh graders with exceptional research and analytical skills who have successfully completed Advanced Placement World History are eligible to request this course. All students enrolled in this course are required to take the Advanced Placement exam in May and the United States History & Government Regents exam in June. Students are expected to complete a summer assignment.

Criminal Justice **2274**
Level of Student: Grade 12
No. of Credits: ½
Prerequisite: Successful completion of U.S. History and Government and Regents exam
Criminal Justice is available to seniors as an alternative to the Government 12 required course for graduation. Students study aspects of law-related history and are required to participate in criminal justice activities, research, mock trial, debates, interviews, and oral presentations.

Economics **2155**
Level of Student: Grade 12
No. of Credits: ½
Prerequisite: Successful completion of U. S. History & Government and Regents exam
This one semester mandate emphasizes basic concepts and principles of economics and economic decision-making, and includes projects and brainstorming sessions to enhance the individual's ability to function as an American and world citizen.

Advanced Placement United States Government and Politics **2138**
Level of Student: Grade 12
No. of Credits: 1
Prerequisite: 90% or above average in United States History & Government; teacher recommendation and approval of the Director of Humanities
This course can be taken in place of Criminal Justice and it will encompass the requirements for Economics. AP U.S. Government and Politics course involves the study of democratic ideas, balance of powers, and tension between the practical and ideal in national policymaking. Students analyze and discuss the importance of various constitutional principles, rights and procedures, institutions, and political processes that impact us as citizens. As a college-level course, it is rigorous and demanding. It requires students to put forth their best effort on a daily basis, both in class and in reading and listening to the news outside of the classroom. All students enrolled in this course are required to take the Advanced Placement exam in May. Students are expected to complete a summer assignment.

Impact of Sports in America **2228**
Level of Student: Grades 10, 11, 12
No. of Credits: ½
Prerequisite: None
Through the study of the history of sports and its impact on American society, this course is designed to bring students a different perspective of their understanding of American History. Utilizing various tools such as; documentaries, film, literature and internet resources students will be exposed to events, people and the movements that have helped to shape some of America's cultural identity. Students will be assessed through writing assignments and presentations, both group and individual. New York State

standards of American History, Economics, World History and Civics will be addressed throughout this course.

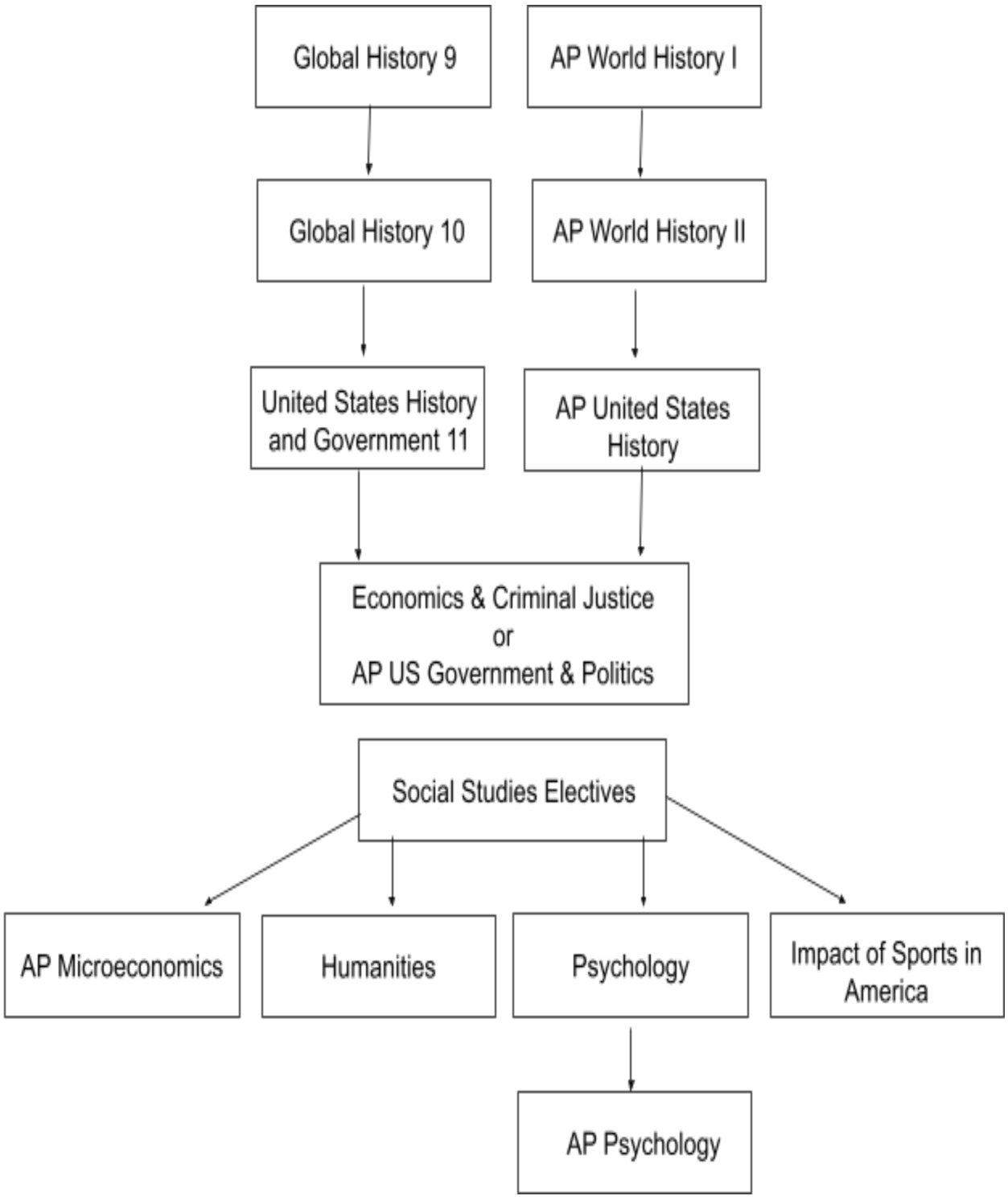
Introduction to Psychology **2280**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: Completion of or enrollment in United States History & Government
This course will introduce the student to the concept that psychology is the science of behavior. The course touches on research in learning, perception, and the psychological foundation of behavior. Students will learn how individuals search for identity, and how social institutions affect personality. They will compare adolescence in various cultures, and receive an overview of mental disorders.

Advanced Placement Psychology **2279**
Level of Student: Grades
No. of Credits: 1
Prerequisite: Successful completion of ½ year Introduction to Psychology
The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological basis of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatments of psychological disorders, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence and effectively communicate ideas.

Humanities **2270**
Level of Student: Grades 11-12
No. of Credits: ½
Prerequisite: Completion of or enrollment in United States History & Government
This course will identify, analyze and discuss the values of three societies, one ancient, one Renaissance and one modern. Citizens, ideals, and realities of each are examined through many sources. Emphasis is on what each society considered “the good life” and how cities exemplified this life. This course concludes with a term project and final exam.

Advanced Placement Microeconomics **6180**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Teacher recommendation and approval of Director of Humanities
Do you want to major in business in college? If the answer is yes, then this is the course for you. Students will develop a thorough understanding of the principles of economics as they apply to the economic system. There will be an emphasis on basic measurements of economic performance, nature and function of product markets, and governments’ role in the economic system. All students enrolled in this course are required to take the Advanced Placement exam in May. This course is not NCAA approved. Students are expected to complete a summer assignment.

SOCIAL STUDIES



TECHNOLOGY
Mr. Andy Matthews, Director

Foundation Course:
Design and Drawing for Production **6671**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: None
This is a fundamental course where students learn the basics of drafting and are introduced to the graphic language of industry. It contains the fundamentals of visualization and projections, lettering, geometric constructions, orthographic (2D) projection, pictorial (3D) design, and modeling. Students utilize Computer Assisted Drawing (CAD) and regular drafting methods. Students will have an opportunity to use 3D printers to materialize their designs.

Systems Courses:
Production Systems (Construction/Manufacturing) **6571**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course introduces students to materials processing. Students study and use common construction and manufacturing techniques. This is accomplished through a variety of lab activities including mass production of a wood project and construction activities: framing a wall, building stairs, electrical wiring, and sweat soldering copper pipe. Topics covered are safety, hand tools, power tools, machines, fabrication, fastening, finishing, and career opportunities.

Transportation Systems **6572**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
In this course, students explore the world of land, marine, air, and aerospace transportation. Students will complete lab activities on four stroke engines learning about engine theory and its sub-systems, such as ignition, fuel, cooling, and lubrication. Students learn boating safety and navigation. Using flight simulation software, students fly a plane and use instruments to soar the skies.

Communication Systems **6575**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course introduces students to audio and audio-visual systems, as well as, desktop publishing and graphic systems. Students are exposed to various media and career opportunities. They use video cameras, digital cameras, editors, computers, and silkscreen printing equipment to produce individual and graph projects. Class activities and projects produce screen-printed T-shirts, brochures, and storyboarded radio and audio-visual commercials, recorded and edited by the students.

Media Production **6678**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisites: None
This multimedia course engages students in the world of digital media production. Students will be responsible for preparing the Mount Sinai High School Yearbook, “Coda,” via desktop publishing and digital imaging techniques. Students will study all aspects of the publication process, including budgeting, layout, and design. Students learn to use basic imaging tools and controls to increase their creative expression in various types of media. Class members are expected to work outside of the class covering school activities and meeting production deadlines.

Electricity/Electronics **6573**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course contains two modules. The electricity module allows students to study about sources of electrical energy, home wiring, and appliance systems, and gives a broad consumer education on electrical products. The electronics module provides an opportunity to develop basic skills.

Principles of Engineering **6685**
Level of Student: Grades 9 - 12
No. of Credits: 1
Prerequisite: None
In this class, students are exposed to engineering by working in teams and solving problems. Learn about structures and mechanical engineering when you enter contests where you will build cranes and bridges. Work with micro controllers and build robotic systems. This is an exciting class with no limits.

Web Page Design **3591**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: Successful completion of Computer Applications or proven equivalent computer skills and proficiency in English
This course teaches skills necessary to produce web pages and web sites. Using the latest techniques and equipment, students design and create a variety of web pages through practical experience. Instruction is in web page design and development using video digitizing, scanning clip art and text, desktop publishing, and the computer as a presentation tool. Assignments include creating a web page, producing a newsletter, generating a computer presentation on an assigned topic, an audio slide presentation and more. It is an excellent course for learning to communicate ideas in many different ways to ensure that students are not left behind on the information highway. This course does not count as part of the Regents Diploma sequence requirements.

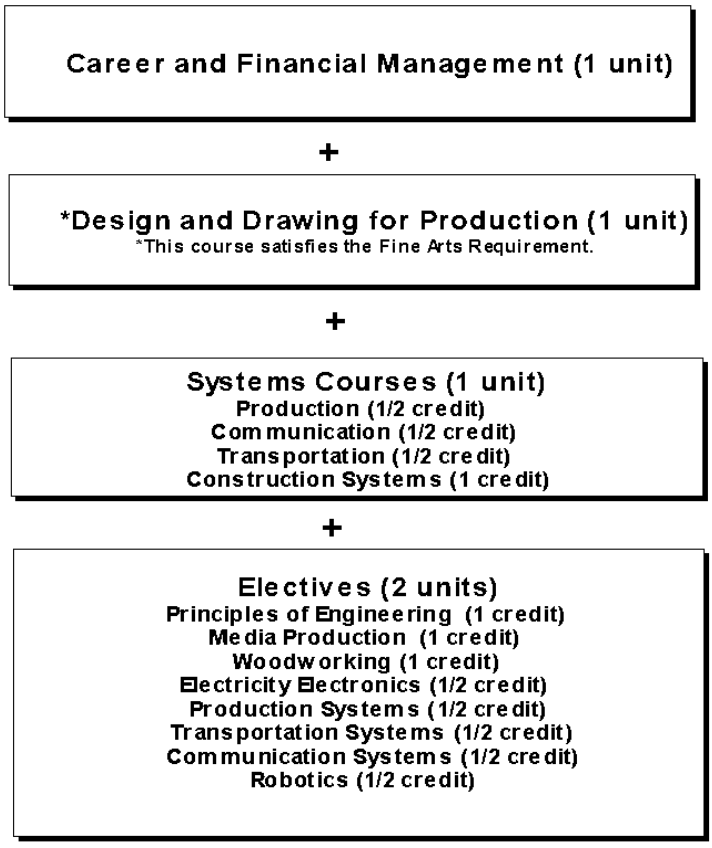
Woodworking **6577**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: None
This one-year course focuses on basic experiences and processes in materials, hand tools, portable and machine woodworking operations, design, finishing, and related information on furniture construction.

Construction Systems **6673**
Level of student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Design and Drawing; Woodworking is recommended
This course is an introduction to the basic building materials, components, methods, and sequences in residential construction. It is designed to give students basic, entry-level skills in construction and related trades along with an overview of career opportunities available. Emphasis is placed on safety and the proper use of both hand and power tools. This course provides students the experience of participating in the building of a shed along with various other building projects. This course will meet two periods every day for a semester.

Robotics **4787**
Level of Student: Grades 9-12
No. of Credits: ½
Prerequisite: None
This course is an introduction to basic robotics focusing on robotic integration and applications in the real world. Students will study simple machines, automation and closed vs. open loop systems. Students will apply this knowledge to the design and development of several robotic projects.

TECHNOLOGY

The following flowchart illustrates how a student can obtain a five-unit sequence in Technology.



Enrichment Elective
Web Page Design (1/2 credit)

WORLD LANGUAGES
Mrs. Melissa Drewisis, Director

Spanish I **5315**
Level of Student: Grades 9-12
No. of Credits: 1
Prerequisite: None
This level I course leads to a local assessment in Spanish at the end of Grade 11. Emphasis is on development of communicative skills, reading and grammar prerequisites for Spanish II. Spanish and Latin American cultures are explored. The four skills of listening, speaking, reading and writing are practiced in keeping with the New York State's Learning Standards for Languages Other Than English.

Spanish II **5326**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Spanish I
Spanish II is a continuation of the skills mastered in Spanish I. The scope of the content has been widened to improve a student's ability to converse, read and write on a variety of topics, with emphasis on culture. This course prepares students for a local assessment examination at the end of Spanish III.

Spanish III **5335**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: Successful completion of Spanish II
This course emphasizes vocabulary building and grammar review. Language skills are refined and complex grammatical patterns are learned. At the end of this course, the student will have completed the world language requirement for a Regents diploma. In addition, students must pass the comprehensive/final exam for the Advanced Regents Diploma.

Spanish III Honors **5212**
Level of Student: Grades 10-12
No. of Credits: 1
Prerequisite: 90% or above average in Spanish II, teacher recommendation and approval of the Director of Humanities
The Spanish III Honors course prepares students to enter the upper level Spanish courses (IV Honors and AP) available at the high school. Spanish will be used almost exclusively for the development of the five language components: speaking, reading, writing, listening, and culture. Literature, current periodicals, and cultural activities may be included to give students a complete view of the language and people they are studying. SUNY Stony Brook College Credit is available for a fee through the ACE program. Please see page 24 for more details. At the end of this course, the student will have completed the world language requirement for a Regents diploma. In addition, students must pass the comprehensive/final exam for the Advanced Regents Diploma.

Spanish IV **5354**
Level of Student: Grades 11-12
No. of Credits: 1
Prerequisite: Successful completion of Spanish III
Spanish IV emphasizes further acquisition of language proficiencies, especially oral and written skills. Students are introduced to cultural nuances through Spanish and Latin American literature and film. SUNY Stony Brook College Credit is available for a fee through the ACE program. Please see page 24 for more details.

Spanish IV Honors **5361**
No. of Credits: 1
Prerequisite: 90% or above average in Spanish III Honors, teacher recommendation and approval of the Director of Humanities
This is an intense course conducted entirely in Spanish, which develops the student's speaking, reading, writing, and listening capabilities in the language through authentic readings and aural programming. The student will demonstrate his or her language acquisition through oral presentations, written papers, reading of literature, and listening to Spanish radio, television, or movies. The course will also emphasize the acquisition of syntactical structures needed to enhance the four required language skills. Students enrolled in the Spanish IV honors class are preparing for the college level and/or Advanced Placement exam in their fifth year of the language. SUNY Stony Brook College Credit is available for a fee through the ACE program. Please see below for more details.

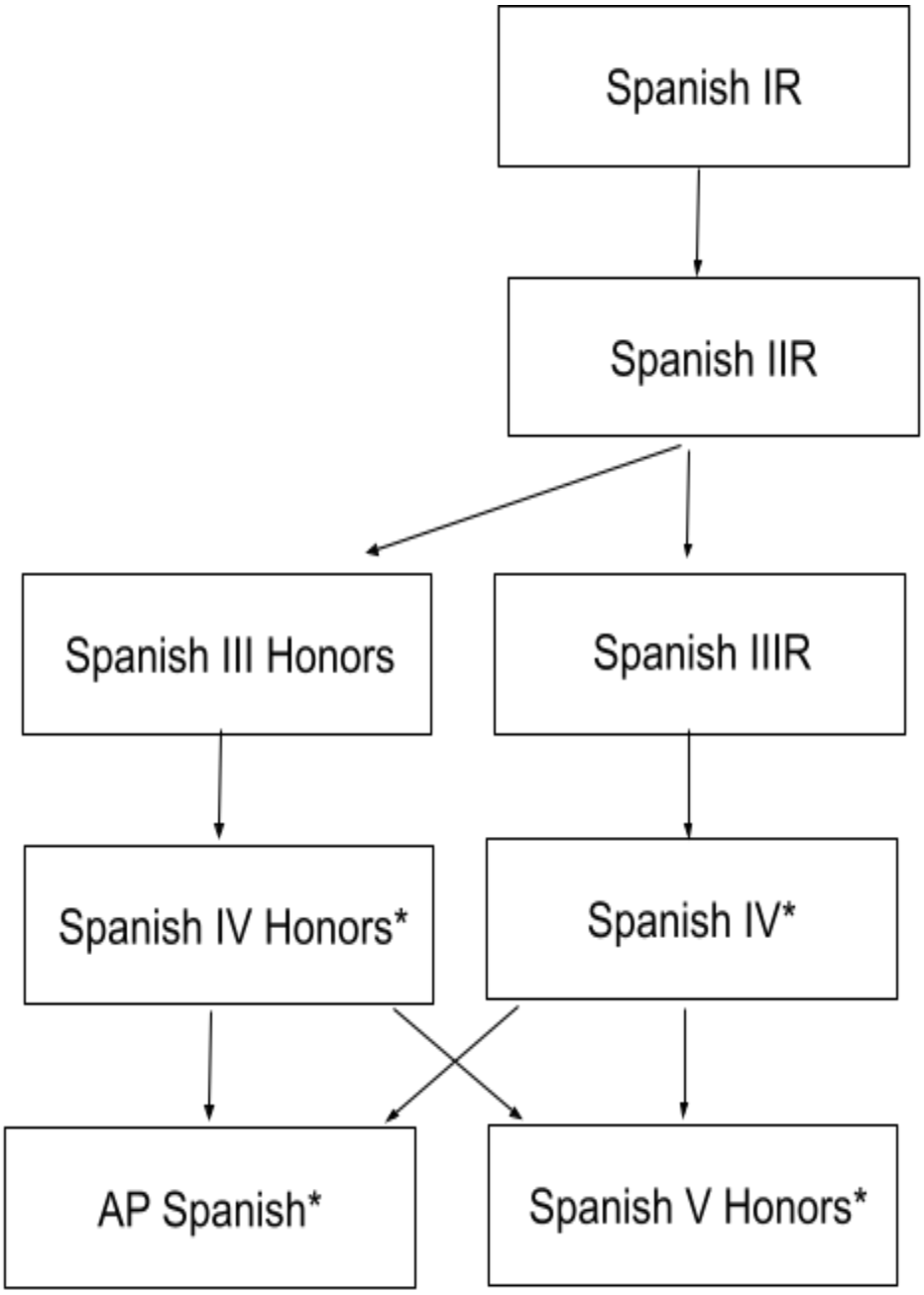
Spanish V Honors **5363**
No. of Credits: 1
Prerequisite: Successful completion of Spanish IV or Spanish IV Honors
This course enables students to further their development of interpersonal skills in the target language. Emphasis is placed on the improvement of speaking skills and acquisition of a cultural understanding of Spanish-speaking countries. Cultural awareness is developed through the use of authentic materials, literature, the internet and other resources. Topics include fables, various short stories, cooking, fashion, film, television and contemporary issues. SUNY Stony Brook College Credit is available for a fee through the ACE program. Please see below for more details.

Advanced Placement Spanish Language & Culture **5362**
Level of Student: Grades 12
No. of Credits: 1
Prerequisite: 90% or above average in Spanish IV Honors, teacher recommendation and approval of the Director of Humanities
This is an intense conversational, structural, and composition course with selected advanced readings. All students enrolled in this course are required to take the Advanced Placement exam in May. SUNY Stony Brook College Credit is available for a fee through the ACE program. Please see below for more details. Students are expected to complete a summer assignment.

Stony Brook University
Accelerated College Education Program - ACE

Stony Brook's Accelerated College Education (ACE) Program provides students with the academic challenges of a college-level curriculum within the high school setting. Enrollment in ACE courses may provide future opportunities to students, such as the ability to enroll in higher-level college courses or to complete a four-year degree in a shorter amount of time.
The ACE program helps high school students develop the skills necessary for a successful college career, familiarizes them with the demands of university coursework, and introduces them to the learning environment and resources of a major university before they enter college full time. Students enroll in Stony Brook University courses taught in their high school. Stony Brook tuition and fees are waived; students pay only a $250 ACE Program fee for each course.
Upon successful completion of ACE course requirements, students will receive credit from Stony Brook University for the course(s) in which they have enrolled and for which they have paid.
Registering for this course also entitles you to a Stony Brook University Student I.D., with free admission to Stony Brook NCAA Division I home games and access to the university's libraries.

World Languages Curriculum Pathway



**Completion of this course, with an average of 85 or better, will earn 1 point towards the World Language criteria for Seal of Biliteracy.*