

Marcellus Senior High School



Program of Studies
2017-2018

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MARCELLUS SENIOR HIGH SCHOOL
OFFICE OF THE HIGH SCHOOL PRINCIPAL

Fall 2017

Dear Parents and Students:

Students have many choices as they pursue their interests, expand their experiences, and prepare for college and career. Students, the parents, and the counselor will work together to plan the four years of high school and to make appropriate decisions/revisions along the way. The student's long-range goals and interests as well as the very important requirements for graduation should guide the decision making. The 2017-2018 Program of Studies supports that process. All students meet annually with their counselors to discuss course and college/career plans. Teacher recommendations, standardized test scores, past performance, interests and future plans are considered in the course selection process.

The "Program of Studies" will familiarize you with some school policies and the general nature of course offerings. This document is also available on the district website and on Naviance. Please note that all courses may not be offered every year due to enrollment and staffing issues. Your school counselor will be able to provide you with more information.

The faculty of Marcellus High School is dedicated to assisting students in developing their full potential. Please contact me if you need assistance for direction of any kind.

Sincerely,



John R. Durkee
Principal

SENIOR HIGH SCHOOL GRADUATION INFORMATION

To graduate, a student must have a minimum of 22 credits for a Regents diploma, and meet credit and sequence requirements as defined by the NY State Board of Regents.

Students must take a minimum of 5 academic subjects including physical education per semester. Any variation/modification is at the discretion of the building principal.

A typical schedule for students in each grade level is provided to use as a general guide for successfully fulfilling the grade placement criteria and meeting graduation requirements.

Freshman	Sophomore	Junior	Senior
English 9	English 10	English 11	English 12
Global History I	Global History II	US History	Part. in Gov./Eco
Math	Math	Math	Math
Science	Science	Science	Science
World Language	World Language	World Language	World Language
Fine Arts requirement	Human Ecology/ Elective	Electives	Electives
P.E.	P.E.	P.E.	P.E.

ACADEMIC POLICIES AND PROCEDURES

I. Minimum Course Load

Students at Marcellus Central are required to carry five (5) courses (reflecting 5 units of credit) plus physical education. Exceptions will be considered by the Senior High School Principal for students with serious extenuating circumstances (e.g., health condition, personal, or family welfare, etc.).

Credit for courses enrolled outside the district need to be pre-approved by the principal. Requests for credit approval should be submitted in writing to the school counseling office prior to enrollment in the course.

II. Course Scheduling

All students are seen by a school counselor in the spring to discuss current and future plans. A part of this meeting is devoted to subject selection for the next year(s) as is appropriate for the plans. Schedule changes are made throughout the spring and into the summer as the circumstance necessitates.

III. Drop Policy/Dropping a Course

A student may drop a course with parental approval. The following conditions apply:

1. If a student drops a course during the first 10 weeks of a full year course, or during the first 5 weeks of a ½ year course, no record of having taken the course will appear on the student's transcript.
2. If a student drops a course beyond the above time limit, but before the last 10 weeks of a full year course, or before the last 5 weeks of a ½ year course, a Withdraw/Pass or Withdraw/Fail will appear on the student's record.
3. If a student drops a course during the last 10 weeks of a full year course, or during the last 5 weeks of a ½ year course, the student will receive a final grade which will appear on the final record and will be used for averaging purposes.
4. Students must remain in the class until the official drop has been processed. The school counselor will make the student aware when the drop is official.

CHANGES TO ANY OF THE INFORMATION ABOVE IS AT PRINCIPAL DISCRETION.

IV. Changing Levels of a Course

Changing from one academic level of the course to another academic level of that course of study will be made only in the situation where it is determined that the content and objectives of the course are too difficult for the student based on the student's aptitude and ability. If the reasons for a student's poor academic standing in the course include poor attendance, unwillingness to do the homework, and other indications of lack of effort, then such student would **not** be changed to a lower academic level course.

V. Honor Roll

Honor roll is computed and published each of the four marking periods. Please know that students taking honors/college level courses will have the “weight” recorded in their quarterly overall average, not quarterly course average.

Honor Roll Eligibility

High Honor Roll: The average for all subjects taken is 92% or above *(See Note)

Honor Roll: The average for all subjects taken is at least 88%. *(See Note)

***NOTE:** *Students with an incomplete will not be eligible for the honor roll or high honor roll that marking period until the incomplete is resolved.*

VI. College Level/ Advanced Placement/ Honors:

****Please refer to the Guidelines on Pages 6 and 7****

VII. Summer School

Summer school is offered annually to those students who fail a course (but are not in violation of the attendance policy) and/or the Regents exam if applicable. Summer school is offered through BOCES at a site to be announced. Students are approved for enrollment by the building principal or his/her designee.

SPECIAL NOTE:

Not all courses listed in this Program of Studies may be offered each year. Some course listings have been included that are still being reviewed by the staff and administration at the time of printing this booklet. Some courses may be dropped because of insufficient enrollment; other courses may be offered on a rotating basis.

Definition of terms

The following are definitions of terms frequently used in discussing educational planning:

1. **Unit of Study:** At least 180 minutes of instruction per week throughout the school year, or the equivalent.
2. **Unit of Credit:** Credit given to a student for passing a subject studied for a specified time, usually a full academic year.
3. **Elective:** A subject taken by choice and not required.
4. **Regents Credit:** Credit given for a subject in which a New York State Regents Examination or its equivalent is passed.
5. **Required Subject:** Subjects which all students need in order to meet graduation requirements.

College Level Courses Available 2017-2018

Course	HS Credits	College Credits	College	Cost **
Global Environment (EFB 120)	½	3	SUNY ESF	\$200 / 3 credits
SUPA Economics (ECN 203)	.5	3	Syracuse University	\$336 / 3 credits
Freshman Composition and Literature I (Eng 103)	.5	3	SUNY (OCC)	Free
Freshman Composition and Literature II (Eng 104)	.5	3	SUNY (OCC)	Free
Computer Applications I (CIS 100)	½	3	SUNY (OCC)	Free
Web Page Design (CIS 130)	½	3	SUNY (OCC)	Free
Multimedia (CIS 106)	½	3	SUNY (OCC)	Free
AutoCAD (MET 261)	1	3	SUNY (OCC)	Free
Pre-Calculus (MAT 143)	1	4	SUNY (OCC)	Free
Spanish IV (SPA 201)	1	3	SUNY (Oswego)	\$175 / 3 credits
Spanish V (SPA 202)	1	3	SUNY (Oswego)	\$175 / 3 credits
French IV (FRE 201)	1	3	SUNY (Oswego)	\$175 / 3 credits
French V (FRE 202)	1	3	SUNY (Oswego)	\$175 / 3 credits

****Prices are subject to change. Cost provided at this time is based on 2016-2017 pricing.**

AP & Honors Courses Available 2017-2018

Selection for Advanced and Honors Courses at Marcellus High School is based on grades received in pre-requisite course work, lexile level, and high evaluative scores in the areas of analytical reading, analytical writing, work ethic, attendance, and ability to work independently (with the exception of AP Art)

Course	Grade	Pre-requisites
AP English Language	10	English 9 Students must be able to read and comprehend college-level texts (The College Board, 2014).
AP English Literature	11	English 9 & 10
AP U.S. History	11	Global History 9 & 10
AP U.S. Government & Politics	12	Global History 9 & 10, U.S. History
AP Studio Art	12	Studio Art 1 and Studio Art II (for 2D Design Portfolio) or Studio Art 1, Photo 1 and Photo II (for Photography Portfolio)
AP Calculus AB	12	Successful completion of Pre-Calculus.
AP Statistics	11, 12	Pass the Algebra 2 Regents Exam and/or pass Algebra 2 course.
AP Physics 1	11, 12	Completion of Algebra & Geometry & completed or enrolled in Algebra 2.
AP Physics 2	12	Successful completion of Earth Science, Living Environment, and Regents Chemistry, AP Physics 1, Algebra, Algebra 2, and must be enrolled in either Pre-Calculus or AP Calculus for their senior year.
AP Biology	11, 12	Successful completion of Earth Science, Living Environment, and Regents Chemistry and Mastery (85) on each of the Regents exams or permission of the Science Department.
Honors Chemistry	11	Successful completion of E.Science, Liv. Env., Algebra and Geometry. Completion of Algebra 2 (recommended co-requisite if not already completed);

****Fee of \$93/AP Exam is based on 2016-2017 pricing.**

[Diploma Type Chart](#)-Click on the hyperlink for information about graduation diploma types.

[Graduation requirement chart](#)-Click on the hyperlink for information about graduation requirements.

CAREER AND TECHNICAL EDUCATION AT MARCELLUS*

**Includes: Business, Information Systems, and Technology courses*

****Business, Information Systems****

Business and computer courses are designed to meet the common needs of all students and the career needs of students preparing for employment in their future. These courses are designed to develop knowledge, skills, habits, attitudes, and ideals necessary for successful careers. All of these courses cover information and develop skills that will benefit all students in their personal lives and in the workplace.

It is possible for students to earn a five-unit sequence in Business/Information Systems by completing the courses listed below. These courses will provide students with the ability to work with a wide variety of software applications.

Enrolling in the five-unit Business Information Systems sequence will allow students to be exempt from the three-unit foreign language requirement and with successful completion meet the Regents Diploma with Advanced Designation.

****Business, Information Systems****

5-Unit Sequence

Career and Financial Mgmt. (1/2 unit)
Keyboarding Applications (1/2 unit)
*Computer Applications I (1/2 unit)
Computer Applications II (1/2 unit)

Plus 1 unit from the following: Plus 3 units from the following:

*Multimedia	(1/2 unit)	*Multimedia	(1/2 unit)
*Web Page Design	(1/2 unit)	*Web Page Design	(1/2 unit)
Intro. Program & Game Design	(1/2 unit)	Intro. Program & Game Design	(1/2 -1 unit)
Adv. Video Game Dev.	(1/2 unit)	Adv. Video Game Dev.	
*Auto CAD	(1 unit)	*Auto CAD	(1 unit)
Yearbook	(1 unit)	C.A.S.E. Law	(1/2 unit)
		Yearbook	(1 unit)
		**Business Math	(1 unit)
		**Math of Finance	(1 unit)
		Career Internship	(1/2 -1 unit)

*College credit may be earned for these courses.

**If not already used as part of the Math graduation requirements.

**Please refer to the MATH section of the Program of Studies for a complete description of these two courses.

CAREER AND TECHNICAL EDUCATION AT MARCELLUS (*continued*)

Career and Financial Management (0500)

½ Unit of Credit

Required by all students pursuing sequences in Business or Technology

This course is essential for students who plan on living and succeeding in today's competitive society. Students will learn about the realities of the working world while learning more about themselves. They will have the opportunity to develop transferable skills essential to all occupations. In "**The Working Citizen**," students will assess their abilities, interests, and aptitudes and will research career paths of interests. Students will also learn the best processes to follow in completing job applications, writing resumes and cover letters and interviewing for jobs. "**Personal Resource Management**" will teach students to manage resources such as time, skills, energy, and money. Students will learn about buying a car and a house, using and balancing a checking account, investing and saving, preparing tax returns, and purchasing insurance. They will prepare a realistic financial budget for an individual living independently. They will learn the difference between cash and credit, and how, when and why to use both.

Keyboarding Applications (0506)

½ Unit of Credit

Students may earn 3 college credits for this course.

This half-year course emphasizes the keyboarding skills needed by students preparing for college and/or the workplace. Students use computers and word processing software to learn touch-typing and formatting of letters, memos, reports, outlines, etc.

With the increase of technology in the home and in careers, every student should graduate with well-developed keyboarding skills. A keyboarding class is strongly recommended for anyone planning to take a computer course, attend college, or work with office machines of any kind.

C.A.S.E. Law (Cyber And Sports & Entertainment Law) (0509) **½ Unit of Credit**

This half-year course focuses on current law and our legal system that is especially relevant to real-life experiences. Students will explore cases involving the legalities of personal and business law related to everyday life, contract law, the court system and courtroom procedures, sports, entertainment and cyber law, ethics, technology law, intellectual property, social responsibility, and consumer protection. Understanding the law will give students a strong foundation of real-world legal knowledge and for preparation for careers in business or law.

The material covered in the C.A.S.E. Law course is reinforced and enhanced through the use of technology, guest speakers, videos and hands-on, project-based activities whenever possible. In addition, because experiential learning is an important aspect of all business courses, a field trip to the Courts or other law related destination may also be offered.

CAREER AND TECHNICAL EDUCATION AT MARCELLUS (*continued*)

Computer Applications I (0553)

½ Unit of Credit

Students may earn 3 college credits for this course.

Students will have hands-on experience using a variety of software such as the Microsoft Office 2013 suite (*Word, Excel, Access, and Power Point*) and graphics programs. They will learn to use word processor functions and how to manage databases and spreadsheets. Students will also use scanners, digital cameras, laminating and binding machines to enhance projects and presentations. GOOGLE applications are also explored in this class.

This course is designed to provide students with basic knowledge about computers and how they can be used in the home, in school, and in business. Students will leave the course with well-developed practical computer skills for use in college or the workplace.

Computer Applications II (0554)

½ Unit of Credit

Prerequisite: Computer Applications I

Students will develop more advanced technological skills needed in today's workplace. As a continuation of Computer Applications I, students will learn some of the more advanced features of Microsoft Office 2013, including *MS-Publisher* – with a focus on publishing and graphics.

In addition, several new technologies are introduced in this class: including WEB 2.0 applications and digital audio and video production/editing. Other industry-leading components of Adobe CS5 such as

Flash, Soundbooth and *InDesign* may also be explored. Students will also learn about the emerging technology of Podcasting. Using video or voice recording and editing software, such as *Audacity*, students will create a variety of media files. GOOGLE applications will also be explored in this course.

Multimedia (0556)

½ Unit of Credit

Prerequisite: Computer Applications I

Students may earn 3 college credits for this course.

Students will learn to integrate text, sound, video, and animations create original multimedia. Scanners, digital video cameras, and industry-leading animation and graphic software such as *Paint Shop Pro* and *Animation Shop* are utilized. Digital photo editing will be taught using Adobe CS5's *PhotoShop*. Industry leading Windows-based digital video authoring software – Adobe's *Premier Pro* - will be an integral part of this course, as students will learn how to use a digital camera to generate video and techniques to edit that video to create professional finished products. Students interested in Graphic Design, Photo Editing, Web Page Design or Filmmaking/Video Editing careers would greatly benefit from taking this course.

CAREER AND TECHNICAL EDUCATION AT MARCELLUS (*continued*)

Web Page Design (0558)

½ Unit of Credit

Prerequisite: Computer Applications I

Students may earn 3 college credits for this course.

This course provides the student with the necessary skills to build web sites for personal use or to work in the fast-paced, challenging field of Web Page Design.

Students will learn to plan and develop well-designed Web pages using HTML (Hypertext Markup Language). They will learn to design pages with effective navigation and attractive use of graphics, text, and color. Students will create pages with links, tables, graphics, lists, forms, etc., using HTML.

Students will also learn web page design skills by using the industry's top graphical web site design program – *Dreamweaver*. It is estimated that 70% of all major sites were built and are maintained using *Dreamweaver*.

Students in this course will learn techniques to design and create their own personal web sites from start to finish. *Although not required, it is recommended that the student who enrolls in this course also take Multimedia as a companion course.*

Introduction to Programming & Game Design (0562)

½ - 1 Unit of Credit

Prerequisite: Computer Applications I

Students in this course will learn the basics of computer programming and terminology. Students will learn the logic and coding techniques common to most programming languages. Students will put their coding skills to the test by designing and creating appropriate skill-building games. Programming logic is taught, along with extensive work in graphic and sound editing. Students will focus on applying the programming skills to successfully develop a video game. These concepts taught are transferable to any programming environment. *GameMaker* is the application primarily taught, however other game designing platforms may be explored as the course advances. For example, 3-D game programming engine – *Alice* – will be explored as well as smartphone app development. Robotics is also introduced in this course - learning to program the NAO robot and the Sphero devices.

Students will also research and gain experience in several aspects of the computer programming and game industry including -career opportunities, practical applications of interactive video games, technological innovations, project development and problem solving skills. Student interested in potential careers in any computer-programming field will benefit from this course.

Advanced Video Game Development (0570)

½ Unit of Credit

Prerequisite: Introduction to Programming & Game Design

This is an advanced course that builds on the skills taught in Introduction to Video Game Development. The industry, game design and marketing concepts are covered in more depth. Also, more advanced computer programming skills needed to develop video games are taught. More complex games are created and tested. Students will learn the advanced features in *GameMaker* and have the opportunity to learn a 3-D game programming engine –*Alice*. A major objective of this course is to design an educational game, develop it, test it, package it and market

it. The class may

CAREER AND TECHNICAL EDUCATION AT MARCELLUS (*continued*)

work with elementary students to test the games and offer real-world feedback. Guest speakers from the industry, colleges and a field trip to a video game development company are key aspects of this course. The video game industry is currently one of the fastest growing, and this course offers experience, insight and preparation for students who may be interested in pursuing careers in this rapidly growing field.

Career Internship (0572)

½ - 1 Unit of Credit

Prerequisite: Career and Financial Management

Career Internship is a collaborative school and business partnership designed to provide a work experience that enables students of various academic abilities to:

- Learn about the world and explore career opportunities
- Develop broad-based transferable skills to be applied in school and the workplace
- Earn money to potentially save for post secondary education
- Earn up to two units of elective credit towards graduation

Students must fulfill the related classroom instruction requirement. A minimum of at least one class period per week of related in-school instruction must be provided to each participating student. This course would be taken in conjunction with Career & Financial Management. Credit earned for this course is dependent upon a number of internship hours completed and successful completion of Career & Financial Management.

*****TECHNOLOGY EDUCATION *****

A Technology Education sequence can give students a broad base of skills that will help prepare students for a variety of careers. Employers today want employees who can think critically and independently. They want people who know how to solve problems and can keep up with the pace of a fast-changing, technological society. *Technology Education* courses help students develop these abilities.

- Enrolling in a five-unit Technology sequence will allow students to be exempt from the high school three-unit foreign language requirement.
- Design and Drawing for Production can be used to fulfill the art/music requirement for graduation.

TECHNOLOGY: 5-Unit SEQUENCE

Required Courses:

Design and Drawing for Production	(1 unit)
Materials Processing	(1/2 unit)
Production Systems	(1/2 unit)
Career and Financial Management	(1/2 unit)
Computer Applications I	(1/2 unit)
Foundation of Technology	(1 unit)
*Auto CAD	(1 unit)

* College credit can be earned for AutoCAD

CAREER AND TECHNICAL EDUCATION AT MARCELLUS (*continued*)

Design and Drawing For Production (0653)

1 Unit of Credit

**This course can be used to fulfill the ART/MUSIC requirement for graduation.*

This course is a mixture of Design, Technical Drawing and Pre-Engineering. This course will deal with: sketching, orthographic projection, modeling and prototyping, computer aided drawing, pictorial drawing, problem solving, and many other skills used by designers, technical illustrators, and engineers. The course promotes creative thinking, teamwork, research and analysis, problem solving, and engineering standards. The course runs one full year for one credit. It is a pre-requisite for several technology course.

Materials Processing (0654)

½ Unit of Credit

Prerequisite – Design and Drawing Production

An investigation of how basic production materials (wood, metal, and plastics) are altered by manufacturing and construction techniques. This course is organized in a system format; the resources, processes, and effects are the organizing themes. The resulting framework provides a rather complete view of the variety in materials processing. Students will be involved in laboratory activities that will demonstrate specific concepts in the content outline. Specific and independent type activities will be the main type of hands-on experience.

Production Systems (0650)

½ Unit of Credit

This course presents systems of manufacturing and construction' their resources, processes, products, and quality assurance' their impact on society, the economy, the environment, and manufacturing.

Auto CAD I (0670)

1 Unit of Credit

Prerequisite – Design and Drawing for Production

This is an introductory course in CAD (Computer Aided Drafting) using AutoCAD software. Topics include the manipulation of the basic drawing commands to construct computer detailed multi-viewed drawings.

CREDIT OPTIONS: This course will begin in the fall and continue through the end of the spring semester. 3 COLLEGE CREDIT HOURS from Onondaga Community College will be awarded to the student, upon completion under OCC Title MET 261. Currently these credit hours are tuition free to students.

Foundation of Technology (Engineering by Design)

1 Unit of Credit

Foundation of Technology prepares students to understand and apply technological concepts and processes that are the cornerstone for the high school technology program. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Technology content, resource, and laboratory/classroom activities apply student applications of science, mathematics, and other school subjects in authentic situation.

CAREER and TECHNICAL EDUCATION: BOCES

The Career and Technical Education program (BOCES) provides an important dimension to the educational program available at Marcellus.

Students who enter the BOCES program generally should have completed 10th grade at the home school. When they are in the BOCES program, they attend half of the school day (morning or afternoon) and are then bused to the vocational centers for the remainder of the day. A student receives 3 units of credit toward graduation for one year in BOCES *and* their third credit of Math or Science. Students who graduate receive a Marcellus diploma and may also receive a Career and Technical endorsement if they meet additional requirements.

The BOCES courses equip these students to enter directly into the field or trade that has been studied but does not preclude higher education. Several of our BOCES students have gone on to college for further education.

The Marcellus Board of Education and administration have supported vocational education as a necessary part of the total school program. Parents or other district residents are invited to telephone the high school (673-6300) if they wish further information. A visit to the BOCES center can be arranged for those who wish to see vocational education at its best.

College credit is available for some BOCES programs through articulation agreements with colleges.

Below are the courses offered at BOCES and a description of each course. (*Check with your counselors at Marcellus regarding this*). Career and Financial Management* is required for a major sequence in Occupational Education. It is best if Career and Financial Management* is taken at the high school. If it can't be taken at the high school, then it can be taken at BOCES.

**Refer to CTE Section for course outline.*

AUTOMOTIVE COLLISION TECHNOLOGY

Henry Campus CTE

1st year p.m.

2nd year a.m.

Automotive Collision Technology is a two-year program in which students learn the essential skills needed to begin a career in the auto body and collision industry. As specialists in the automotive industry, Automotive Collision Tech students gain real-world and hands-on experience working in

CAREER and TECHNICAL EDUCATION: BOCES (*continued*)

an industry-standard collision lab setting. Students are provided with internship experiences and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

Students will learn the fundamentals of vehicle refinishing, metal work, unitized body and frame alignment, painting and finishing, welding, plastics repair, body repair/replacement, cost estimation and customer service skills.

AUTOMOTIVE TECHNOLOGY

Henry Campus CTE or Driver's Village

1st year p.m.

2nd year a.m.

Automotive Technology is designed to provide students with basic mechanical knowledge and

skills. As an Automotive Service Excellence (ASE) program certified by the National Automotive **CAREER and TECHNICAL EDUCATION: BOCES** (*continued*)

Technicians Education Foundation (NATEF). This program, which is state and nationally certified, is the first step in preparing an individual for a career in the technical repair field. Over the course of the program, students are provided with internship experiences and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing the industry-standard ASE NATEF technical assessment.

Students gain knowledge and skills through a combination of theoretical study and hands-on lab work, including the repair of customer vehicles in brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems diagnosis on automobiles and light trucks.

COMPUTER TECHNOLOGY

Henry Campus CTE
2 year program

1st year p.m.
2nd year a.m.

The Computer Technology program is designed to prepare students for the ever-changing world of computer and information technology. Through a combination of theory and hands-on lab work, this two-year, Cisco-certified program provides students with the essentials of computer repair and support in the first year, before transitioning to the fundamentals of networking in year two.

As the first step in the computer technology career path, students are afforded the opportunity to earn the industry recognized Cisco Career Certification, which also serves as a gateway to the industry-recognized CCNA Certification. Moreover, the CompTIA A+ Certification is yet another key offering that helps fulfill a comprehensive program for students who are preparing for entry level work or have post-secondary aspirations. Prior to completion, students are also provided with internship experiences and the opportunity to earn a Career and Technical Endorsement on their diploma, which they can achieve by successfully passing the industry standard technical assessments.

CONSTRUCTION TECHNOLOGY

Henry Campus CTE
2 year program

1st year p.m.
2nd year a.m.

The two-year Construction Technology program teaches students the essential skills needed to begin a career in the building and construction trades. Through the construction of a new house, students will gain real-world knowledge and hands-on experience in the fundamental components of carpentry, drywall, painting, framing, roofing, floor installation, door and window installation, blueprint reading, siding, electrical wiring, plumbing, proper tool use, and OSHA safety training.

Students will develop and demonstrate integrated academics and employability skills through class activities, projects, live clinic, community service and professional development. Students are also provided with the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

COSMETOLOGY

Henry Campus CTE
2 year program

1st year p.m.
2nd year a.m.

Cosmetology is a two-year program that instructs students in the theory and practical skills necessary to prepare them for a career in the cosmetology field and/or post-secondary education.

CAREER and TECHNICAL EDUCATION: BOCES (continued)

Students are provided with hands-on training and experience to pursue employment opportunities in such roles as cosmetologists, nail technicians, estheticians, hair stylists, salon managers and small business owners.

As part of the required 1,000 hours of instruction over a two-year period, students are provided with clinical and internship experiences in addition to the opportunity to apply for their New York State Cosmetology License and earn a Career and Technical Endorsement on their diploma by successfully passing a technical assessment.

CULINARY AND PASTRY ARTS

Henry Campus CTE

1st year p.m.
2nd year a.m.

Culinary and Pastry Arts is a hands-on food preparation program that provides students with broad exposure to the science of cooking and the art of pastry design. Through an academic partnership with the National Restaurant Association, students will develop their culinary and pastry skills learning the ProStart curriculum in food production, dining etiquette, customer service, food safety, and sanitation.

As part of the required 1,000 hours of instruction over a two-year period, students are provided with internship experiences and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing the industry-standard ProStart exams and NOCTI performance assessment.

EARLY CHILDHOOD EDUCATION

Henry Campus CTE

1st year p.m.
2nd year a.m.

This course is offered to students who want to work with young children. Students learn about the characteristics, needs, and behavior of three - and four - year - olds and learn how to care for them in a nursery school setting. After learning basic skills, students operate a nursery school for 20 children four days a week. Each high school student in the course is expected to participate in all phases of running the nursery school. On Fridays, students plan activities for the following week and study child development through lectures, discussions, observations, films, speakers, and occasional field trips.

Graduates may find employment in day care centers, nursery schools, and parks and recreation departments. Graduates continue their education in nursery and elementary education at 2- and 4-year colleges.

HEALTH OCCUPATIONS TECHNOLOGY

Henry Campus CTE

1st year p.m.
2nd year a.m.

Health Occupations is a two-year program offering theory and practical experience for students interested in the medical and health care professions. Students are introduced to multiple facets of long-term care, basic nursing procedures, patient rights, ethical practices, medical terminology, and body systems. Students will have the opportunity to earn a NYS license as a Certified Nursing Assistant and CPR & First Aid certification.

CAREER and TECHNICAL EDUCATION: BOCES (*continued*)

This training includes a minimum of 108 hours in a long-term care clinical setting. Students are provided with embedded internship experiences and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

LABORATORY TECHNICIAN

Henry Campus CTE

1st year p.m.
2nd year a.m.

Working in an industrial design medical laboratory environment, students enrolled in the two-year Laboratory Technology program will acquire the knowledge and technical skills that will prepare them for positions as entry-level laboratory assistants or advanced placement in post-secondary education. Students will gain practical learning experience through scientific investigations and experiments, as well as the collection and testing of samples, writing reports and presenting information in a state-of-the-art, high-tech laboratory setting.

As a career link, established partnerships with many local businesses and medical facilities provide students with internships and potential future employment opportunities. In addition, students have the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

MEDIA MARKETING COMMUNICATIONS

WCNY Studios CTE

1st year p.m.
2nd year a.m.

The two-year Media Marketing Communications program offers a rigorous high school and college level of study that pairs hands-on learning in a real-world business setting at WCNY, Central New York's public media organization. WCNY's Broadcast and Education Center serves as a 21st-century classroom for the students under the instructional guidance of OCM BOCES, Onondaga Community College, and WCNY professionals.

In this course, students will work alongside WCNY staff on projects across TV, radio, social media, web, and print platforms, learning firsthand the fundamentals of the world of broadcast media, marketing and communications. Another integral component of the program is the dual credit courses offered through Onondaga Community College, where students begin building their transcript by taking college credits courses on-site with college instructors. Students will also be eligible to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-based technical assessment.

PHYSICAL THERAPY PROFESSION

Upstate Medical University

1st year p.m.
2nd year a.m.

Physical Therapy Professions is a two-year program is designed for highly motivated students who are interested in gaining a postsecondary edge in pursuing a career as a physical therapist, a physical therapist assistant or practitioner in a related field. Located at Upstate Medical University, students will study the fundamentals of the physical therapy profession including the elements of movement, evaluation, treatment, and anatomy and physiology.

As a postsecondary partner, Onondaga Community College provides onsite dual credit courses

allowing students to begin building their college transcript. Another important component of the program is providing students with opportunities to shadow physical therapy professionals in the **CAREER and TECHNICAL EDUCATION: BOCES (continued)**

field. Students are also able to earn a Career and Technical Endorsement on their diploma by successfully passing an industry standard technical assessment.

WELDING TECHNOLOGY PROGRAM

Henry Campus CTE

1st year p.m.
2nd year a.m.

Skilled welding technicians have multiple employment options and are a vital link in the manufacturing, construction, and facilities maintenance industry. As a two-year program, Welding Technology provides students the skills of arc welding, resistance welding, brazing, and soldering, as well as cutting, heat-treating, and metallurgy. Students gain knowledge of electrical systems, power sources and different welding technologies, welding systems, print interpretation, and measurement, as well as the use and interpretation of visual symbols related to welding.

This course will give the student knowledge and technical skills that will prepare them for positions as an entry-level welder or advanced placement in post-secondary education. Work-based learning sites are developed in the second year to allow the opportunity to intern at many local businesses. Students are provided with internship experiences, the opportunity to earn industry-recognized AWS certifications and a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

The following programs are offered through Cayuga Onondaga BOCES and may be available to Marcellus students (if enrollment allows).

APPLIED ELECTRICAL TECHNOLOGY

Auburn campus CTE

1st year a.m.
2nd year p.m.

The Applied Electrical Technology Program students will be involved in "live" work on off-campus construction and restoration sites. Students will master the fundamentals of residential wiring and, as a second-year student, learn electrical codes and their interpretations, the proper installation of metallic and PVC conduit.

CRIMINAL JUSTICE

Auburn campus CTE

1st year a.m.
2nd year p.m.

Want a career in Law Enforcement? Law? Our students enjoy a wealth of opportunities to explore their interest in the world of Criminal Justice, a classroom with real world learning systems.

Criminal Justice is a two-year program that prepares students for careers in security, law enforcement, and the legal field. The curriculum includes extensive preparation in all aspects of law enforcement, including corrections, social services, probation, police investigative work, pre-law studies, and a whole lot more! In addition to academics, students will do hands-on learning such as fingerprinting, handcuffing, criminal takedown tactical training, self-defense, crime scene investigation, crowd control and traffic control.

CAREER and TECHNICAL EDUCATION: BOCES (*continued*)

EMERGING CAREERS IN COMMERCE

Auburn campus CTE

1st year a.m.
2nd year p.m.

Want a career in Fashion? Music? Gaming? Or Entertainment? Our students enjoy a wealth of opportunities to explore their interest in the world of commerce through four fields: Fashion, Music, Gaming, and Entertainment. Emerging Careers in Commerce...a real world classroom with real world learning systems. Develop skills that allow you to prepare for careers in the Fashion, Music, Gaming, and Entertainment industries while sharing your interests and ideas in a connected multimedia environment. Take charge of your future now by developing skills that you will need for the next step in your career.

GRAPHIC DESIGN AND NEW MEDIA

Auburn campus CTE

1st year a.m.
2nd year p.m.

The Graphic Design & New Media Program offers high school juniors and seniors broad-based instruction and hands-on experience in visual communications fields. Graduates of this program will be prepared to enter college or begin entry-level employment in their chosen field. Students gain experiential knowledge and skills with emergingmedia technologies that apply to graphic design, illustration, digital photography, marketing, computer animation, web design, and video production. Students are encouraged to pursue continued education and will graduate from our program with a portfolio that demonstrates artistic and technical competency. This portfolio will have a web and/or video component that displays each student's skills.

HEAVY EQUIPMENT REPAIR AND OPERATION

Auburn campus CTE

1st year a.m.
2nd year p.m.

In the Heavy Equipment Repair & Operation Program, students will learn entry-level skills needed in today's construction industry. Instruction and experience are provided in shop management, equipment repair and operation, and Class A & B truck driving. Learn to operate and repair loaders, dozers, graders, and backhoes.

Additional information about transit work, road & foundation layouts, and measurements are included. Students who demonstrate good mechanical aptitude and like working outside in all types of weather will be successful in this program. A solid background in reading and math work is strongly recommended.

MACHINING AND WELDING

Auburn campus CTE

1st year a.m.
2nd year p.m.

Our competency-based Machining and Welding Program is a unique blend of two professions. The goal of this program is to help students develop job readiness skills relative to the welding and machining occupations. Good work ethics and employable skills are taught through classroom theory and shop activities. The course curriculum will be presented by classroom instruction, shop activities, and industrial tours.

Students will visit local industry and see how the computer and CNC equipment has dominated today's manufacturing. Within the first year, students learn the basic theory and skills of both welding and machining through required classroom and shop activities. Measurement, blueprint

CAREER and TECHNICAL EDUCATION: BOCES (*continued*)

reading, layout, machine setup, and operation of various types of welders and machines are all studied and applied. Required activities and projects act as a curriculum core in order for students to learn the fundamentals of these occupations. Once core requirements are completed, individual projects are encouraged to expand on these skills.

Second-year students have the opportunity to specialize in either the machining or welding portion of the program. Students will continue to develop their knowledge and ability through advanced trade applications in the occupation of their choice. In welding, students will focus on different types of welding procedures, as well as basic design and fabrication skills using pipe benders, rollers, brakes, and shears. In machining, students will expand on their current machine operations and setup skills, along with CNC programming and operation using "Mastercam" software, Haas CNC lathes, and vertical machining centers.

OUTDOOR POWERSPORTS EQUIPMENT AND TECHNOLOGY

Auburn campus CTE

1st year a.m.

2nd year p.m.

The Outdoor Power Equipment program focuses on all aspects of system operations and component breakdown related to the small gasoline engine industry. Students get to learn the general theories of systems and apply repair/troubleshooting techniques to small gas engines while utilizing the same tools and equipment found in repair shops all over the country. Students will get the opportunity to practice on customer and school owned equipment. Safe operation practices are implemented into every aspect of student training.

The Powersports technology program focuses on all aspects of the system of operations and the component breakdown related to the Powersports industry. Students get to learn general theories of systems and apply repair/troubleshooting techniques to Powersports vehicles while utilizing the same tools and equipment found in dealerships all over the country. Students will get the opportunity to practice on customer and school owned equipment. Safe operation practices are implemented into every aspect of student training.

PLANT, ANIMAL, AND LIFE SCIENCES

Auburn campus CTE

1st year a.m.

2nd year p.m.

The Plant, Animal, and Life Sciences Program is a stimulating and challenging option for employment bound or college-bound high school students. Not sure what you want to do...just know you like working with plants and animals, and being outside...we'll help you figure it out at the Cayuga-Onondaga BOCES.

NEW VISIONS PROGRAMS

New Visions Programs are selective programs that involve an application and selection process. Students interested in participating in a New Vision program during their senior year need to formally express their intent in writing to the school counseling office no later than February 1 of their junior year.

CAREER and TECHNICAL EDUCATION: BOCES (*continued*)

Criminal Justice

Onondaga County Sheriff's Office

1 year

8:30 a.m -11:30 a.m.

New Vision Criminal Justice is a one-year program offered to high school seniors. Located at the Onondaga County Sheriffs Department, students study the components of law enforcement, the judiciary and corrections system, causes and prevention of crime and current topics of interest including community relations, gun control, drug enforcement, cybercrime and capital punishment.

Class visitations by community and career professionals will occur in addition to internship and job shadowing opportunities. Key components of the trip include visits to the FBI Academy Police Memorial, the Smithsonian Institute, Congress and Capitol Hill, and the Bureau of Engraving. Eligibility requirements: Interested students must be in their senior year of high school, in good academic standing and on target with all graduation requirements. Eligible candidates should exhibit self-motivation, enthusiasm, and maturity, and must be willing to work both independently and as a team member in diverse settings.

Medical Professions

Crouse Hospital

1 year

8:30 a.m.–11:30 a.m.

New Vision Medical Professions is a one-year program offered to highly motivated high school seniors. As a healthcare field immersion program, students will explore related career pathways as they participate in scheduled rotations at Crouse Hospital, Syracuse VA Medical Center and SUNY Upstate Medical University.

Students will experience firsthand the medical profession working with physicians, nurses, and other health professionals. Through a combination of research and hands-on projects, students will learn about medical ethics, patient rights, human anatomy and physiology, governmental regulations, and health careers. Students will also earn CPR First Aid certification and fulfill their English 12, Participation in Government, and Economics requirements toward graduation. Eligibility requirements: Interested students must be in their senior year of high school, in good academic standing and on target with all graduation requirements. Eligible candidates should exhibit self-motivation, enthusiasm and maturity, and must be willing to work both independently and as a team member in diverse settings.

E-LEARNING THROUGH CAYUGA BOCES

The following courses are offered through Cayuga BOCES E-Learning:

Electives:

Accounting (1 credit)
Astronomy (.5 credit)
Business Law (.5 credit)
Creative Writing I & II (.5 credit each)
Computer Programming: Python & Java (1 credit)
Digital Photography I: Creating Images with Impact (.5 credit)
Earth-Space Science (1 credit)
Engineering Design (.5 credit)
Engineering and Innovation (.5 credit)

E-LEARNING THROUGH CAYUGA BOCES (*continued*)

Fire and Emergency Services (.5 credit)
Forensics: Using Science to Solve a Mystery (.5 credit)
Health (.5 credit)
History of the Holocaust (.5 credit)
Introduction to Anatomy & Physiology (1 credit)
Introduction to Neuroscience (.5 credit)
Introduction to Office Applications I (.5 credit)
Introduction to Office Applications II (.5 credit)
Introduction to Hospitality and Tourism Systems (.5 credit)
Journalism (.5 credit)
Keyboarding and Applications (.5 credit)
Leadership Skills Development (.5 credit)
Marine Science (1 credit)
Marketing & Sales for Tourism and Hospitality (.5 credit)
Medical Terminology: A Short Course (.5 credit)
Medieval History (.5 credit)
Music Appreciation (.5 credit)
Music Theory (.5 credit)
Personal Finance (.5 credit)
Programming with Scratch (.5 credit)
Psychology (.5 credit)
Public Health: The Big Picture in Health Care (.5 credit)
Sociology (.5 credit or 1 credit)
Special Events and Meeting Planner (.5 credit)
Theater, Cinema & Film Production (.5 credit)
Therapeutics: Discovering Careers to Restore and Maintain Wellness (.5 credit)
Vietnam Era (.5 credit)
Web Design (.5 credit)

AP Courses:

AP Art History (1 credit)
AP Calculus AB (1 credit)
AP Calculus BC (1 credit)

AP Computer Science A (1 credit)
AP English Language and Composition (1 credit)
AP English Literature and Composition (1 credit)
AP US History (1 credit)
AP Music Theory (1 credit)
AP Psychology (1 credit)
AP Statistics (1 credit)
AP US Government & Politics (1 credit)
AP US History (1 credit)
AP World History (1 credit)

Math:

Consumer Math (1 credit)

E-LEARNING THROUGH CAYUGA BOCES (*continued*)

Social Studies:

Civics/Government (.5 credit)

Economics (.5 credit)

World Languages:

French I (1 credit)

French II (1 credit)

Spanish I (1 credit)

Spanish II (1 credit)

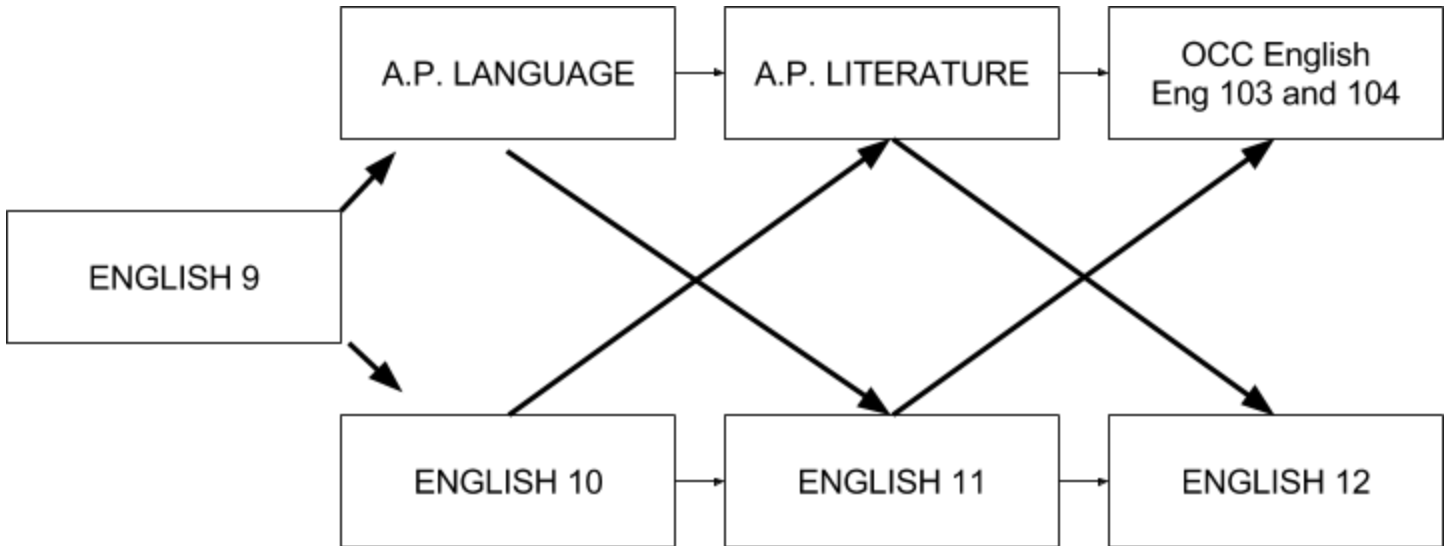
Spanish III (1 credit)

Latin I (1 credit)

Latin II (1 credit)

Details of these classes can be found at [Cayuga BOCES](#)

ENGLISH



NOTE: *Students are required to take four years of English to graduate from high school.*

With the adoption of the Common Core Learning Standards, English/Language Arts engages students in critical thinking through four overlapping strands that serve as the cornerstones for instruction: Reading, Writing, Language, and Speaking/Listening. These strands allow students to build skills in fluency, comprehension, analysis, and communication as are necessary for college-and-career readiness.

Each year builds on the previous year's experiences and learning. Students habitually engage in close, critical reading of texts that increase in complexity. By the end of their senior year, students should be able to read and comprehend a variety of complex texts independently and proficiently. Writing instruction has students explore writing as both a process and an on-demand task. Three main text structures are used in instruction – writing arguments to support claims, writing informative/explanatory texts to examine and convey ideas, and writing narratives to develop real or imagined experiences. Students will also engage in research task/projects that ask them to synthesize information from several sources.

ENGLISH – (continued)

As students engage in a variety of critical reading and writing experiences, they develop a command of the conventions of standard English grammar and usage, and they are able to apply knowledge of language to understand how it functions in different contexts to convey meaning. Students will routinely participate in class discussions (whole group/small group/pairs) and be expected to deliver presentations to develop skills in speaking and listening.

Additional information about the Common Core Learning Standards can be found at the New York State Education Department website at www.engageNY.org

English 9 (0001) and English 10 (0002)

1 Unit of Credit/Year

Students will read literary and informational texts. Text selections will be both teacher-assigned and student-selected. Skill development in comprehension, interpretation, and analysis will be monitored and assessed through the use of literature logs, quizzes, writing tasks, and class

discussions. Reading instruction will not only focus on the written word; students will evaluate content presented in diverse formats and media, with an emphasis on words and language, and how structure and style are used to create/convey meaning. Through the exploration of key ideas and details, evaluation of craft and structure, and integration of knowledge and ideas, students will be able to read and comprehend complex texts appropriate for 9th and 10th grade.

Students will write for a variety of purposes, developing skills that will allow them to write clear, concise first drafts under strict deadlines as well as drafts that are taken through the writing process. Students will focus on understanding how task, purpose, and audience are related, and they will work on developing style and structure appropriate for varied assignments. Research strategies will be emphasized to support the assertion of claims that are defended with relevant and sufficient evidence gathered from multiple sources. Overall, students will write routinely over extended time frames and shorter time frames for a range of tasks, purposes, and audiences.

Students will be assessed routinely over the course of the year. In addition to quarterly assessments and a final exam, students will be required to complete a portfolio. The portfolio grade and the final exam score will be averaged together for the final exam grade. The final exam grade, plus the four marking period grades, will be averaged together for the final course grade.

The tasks required of the students will build the foundational skills necessary for the successful completion of the NYS Common Core English Regents exam at the end of the students' junior year.

English 11 (0003)

1 Unit of Credit/Year

Instruction in reading, writing, language, and listening/speaking will continue texts and materials in the 11th and 12th grade text-complexity band, and a more extensive understanding of literary works is

emphasized. Students will continue to study a combination of assigned readings of novels, plays, short stories, poetry, essays, and other works of nonfiction, while also having a choice in some reading selections. Speaking and listening will continue to be an important part of the curriculum. Students will complete a variety of listening and speaking tasks and will observe the presentation of senior projects (Capstone Projects). Juniors are present at the senior projects for two purposes: learning what will be expected of them in their senior year, as well as learning from the variety of information being presented.

ENGLISH – (continued)

Students in English 11 are required to take the Common Core English Regents exam as a graduation requirement. This test assesses a student's ability to read and evaluate complex texts, establish claims that are supported by evidence while refuting an opposing viewpoint, and analyze the structure and style used by an author to convey his/her ideas. Any student who fails to successfully complete the Regents exam will be required to retake it.

The final exam grade will be the average of the Regents exam score and the portfolio grade. The final exam grade, plus the four marking period grades, will be averaged together for the final course grade.

English 12 (0005)

1 Unit of Credit/Year

Instruction will continue to move the students forward in their abilities to read and write critically

and analytically. A major component of Senior English is the Senior Project. The project is comprised of a comprehensive research task that will culminate in a formal oral presentation and written documentation of the research involved. The senior project is 50% of the final exam grade.

Senior year places an emphasis on college and career readiness. Assigned writing tasks, investigations, and research-based writing assignments will engage students in the types of analytical thinking they need to be successful in the world beyond high school.

The final exam grade for English 12 is the average of the senior project and the student portfolio. The final course grade is the average of four marking periods and the final exam grade.

ADVANCED ENGLISH

Students may select to be considered for enrollment in Advanced Placement English courses starting their sophomore year. A student's accomplishments are taken into account when he or she would like to be considered for the course. Selection criteria for the advanced placement courses follows the course descriptions.

Advanced Placement (AP) Language and Composition (0011)

1 Unit of Credit

Prerequisite: "Students must be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing" (The College Board 2014)

The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods (*College Board, 2016*).

There is a mandatory AP English Language and Composition exam in May.

ENGLISH – (continued)

Advanced Placement (AP) Literature and Composition (0004) 1 Unit of Credit

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work’s structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. (*College Board, 2016*)

ENGLISH – (continued)

There is a mandatory AP English Literature and Composition exam in May. Students will also be required to take the NYS Common Core Regents exam in June.

OCC English- English 103 and 104

1 Unit of Credit

Prerequisite: Completion of English 11 and passing score on the English Accuplacer

ENG 103 Freshman Composition and Literature I (3 credits)

Emphasizing the recursive nature of writing and the process of revision, this course teaches students the skills and processes necessary for writing and revising college-level academic prose. Various aspects of writing, including invention/pre-writing, composing, revision, and editing/proofreading will be taught. Critical readings of various non-fiction texts may be used to develop understanding of rhetorical conventions and genres. Composing in and for electronic environments, as well as their conventions, will also be taught. Prerequisite: Onondaga Community College placement test and/or satisfactory completion of ENG 099 or ESL 116.

ENG 104 Freshman Composition and Literature II (3 credits)

Teaches students to comprehend, respond to and use the ideas of others in their own writing. Skills such as analytic and critical reading and writing, summarizing, and paraphrasing are developed through the study of literature. Term paper form will also be taught. Prerequisite: ENG 103.

SUPA English (0010) (Syracuse University Project Advance)

1 Unit of Credit

Students enrolled in SUPA English will need exceptional skills in critical thinking and analysis. Using academic articles, a seminar-based instructional approach, and analytic discussions, students will be asked to re-see the world to examine differing viewpoints and build global awareness.

Students will be asked to write three extensive papers over the course of each semester. Writing in-depth analysis, research, and argument will require students to use the understanding gained from the class discussion to explore the similarities and differences of ideas and the similarities in the difference as well. SUPA English is taught by a Syracuse University trained instructor who will follow the actual Syracuse University curriculum. Students will be able to achieve six college credits for the two semester course. Because of the nature of the course, students will be required to take the course for the entire year.

All students who enroll in SUPA English will be expected to take the course as an enrolled member of Syracuse University and will pay a discounted tuition rate in the middle of September.

FINE ARTS: PERFORMING ARTS

Music courses offered at the senior high school level offer students the opportunity to broaden their general music knowledge as well as providing a platform for those who wish to major in music. A career major includes two units of a performing organization and the completion of Theory I. If possible, a career major should plan to take Theory 2, although it is not a requirement. The New York State requirement of one year of high school music or art may be met by taking 1 unit of the courses listed below.

Applied Instrumental Music/Concert Band (0749)

1 Unit of Credit

Prerequisite for this course is successful completion of the middle school band program or teacher approval.

This course presents a logical sequence from the middle school band program and the high school musician performing at the intermediate (Level 4) ability level. More advanced rhythms, techniques and styles are presented to provide a platform for developing instrumentalists. Representative music of classical and contemporary composers is studied and performed at public concerts. Small ensembles, such as wind quintet, jazz ensemble, percussion ensemble, etc. will be offered to interested students. Home practice, lesson attendance, progress and rehearsal techniques are stressed in this course. Citizenship and maturity are nurtured in the high school band program through the regular practice of cooperation, self-discipline, responsibility, fulfillment of obligations and loyalty.

Applied Instrumental Music/Symphonic Band (0750)

1 Unit of Credit

Prerequisites for this course are successful participation in Applied Instrumental Music/Concert Band during the previous year, advanced performance ability and teacher recommendation/approval. Balance of instrumentation will also be a factor in determining Symphonic placement.

This course presents a platform for the high school musician performing at the advanced (Level 6) or advanced intermediate (Level 5) ability level. More difficult music and styles will be studied, rehearsed and performed at public concerts. Small ensembles, such as wind quintet, jazz ensemble, percussion ensemble, etc. will be offered to interested students. Home practice, lesson attendance, progress and rehearsal techniques are stressed in the course. Citizenship and maturity are nurtured in the high school band program through the regular practice of cooperation, self-discipline, responsibility, fulfillment of obligations and loyalty.

Senior High Concert Choir (0751)

1/2 Unit of Credit

The Senior High Concert Choir, grades 9 – 12, is comprised of students with varying degrees of experience in singing. Emphasis is placed on the learning of proper vocal techniques, music reading skills, stage presence, and performance etiquette and practices. A wide variety of music styles and periods of choral literature is studied and performed. Group voice lessons are required for all Concert Choir members on a rotating basis once a week. Lessons focus on various aspects of vocal proficiency, sight singing, and music for choir concerts. Students learn to work together to attain a high standard of choral performance, and to experience and discover singing as a form of communication and expression.

FINE ARTS: PERFORMING ARTS (*continued*)

Senior High Select Choir *True Sound* (0752)

1/2 Unit of Credit

This is an auditioned choir from members of the Senior High Concert Choir, and membership selections are made by the director based on ability and the voicing needs of the organization.

The Senior High Select Choir provides opportunities for the music students with advanced reading and vocal skills to achieve a higher level of performance through the study of more challenging choral literature. Students are exposed to a variety of time periods and genres with the emphasis on mastering the advanced vocal and music reading skills, correct stylistic interpretations, and self-discipline needed to perform in the ensemble setting.

Senior High Women's Chorus (0745)

1/2 Unit of Credit

Prerequisite for this course is successful completion of the middle school general music curriculum.

The Senior High School Women's Chorus is comprised of students who are new to the Marcellus High School Vocal Music program and/or are performing at the intermediate ability level. The focus of this ensemble is on basic elements of music, vocal production, music reading (rhythmic and melodic), and ensemble performance skills. Chorus members will expand their listening experiences and perform a wide repertoire of various musical genres, styles, and cultures. Group voice lessons are required for all Women's chorus participants on a rotating basis once a week.

Theory I (0753)

1 Unit of Credit

Music Theory I is designed for the traditional and non-traditional music student who is planning to pursue music as a career, hobby, or leisure activity. The emphasis of study in this course is to introduce, review and reinforce the basic rules and principals involved in using and understanding the language of music. Students will develop skills in sight-singing, rhythm-reading, dictation, playing the piano, conducting, and composition. Students who plan to major or minor in music in college are encouraged to take Theory I their freshman year. *Teacher approval required.*

Theory I Requirements:

- Students must be active in a performing ensemble: (choir/ band, community, or peer ensemble)
- Students must have access to a piano/keyboard.
- Students must participate in a school based concert/program such as Talent Show, Choir or Band Concerts, Coffee House etc.

Theory II (0754)

1 Unit of Credit

Theory II is a continuation of the skills and concepts studied in Theory I. The emphasis of study is to further develop aural, reading, and writing skills and to acquire a broad perspective of music literature through in-depth study of form and analysis, and orchestration. This course is recommended for students who intend to pursue music as a career. *Teacher approval required (Grades 10 - 12).*

FINE ARTS: VISUAL ARTS

To obtain a sequence in Visual Art, students must successfully complete a five-unit sequence.

Regents Advanced Designation Credit

Students must inform their visual art instructor(s) that they are seeking Regents credit for their visual art sequence by the end of the first marking period of the junior year. Students must successfully complete all the following sequence requirements:

1. Studio Art I - 1 credit.
2. Plus any combination of Studio Art II, Ceramics, Photography, or Photography II to equal a total of either 3 or 5 units.
3. A portfolio containing eight pieces of the student's best work that will be exhibited at the Annual Visual Art Show.
4. A Senior project.

*Regents sequence portfolios must be of superior quality, that is, comparable to a portfolio that might be sent to Scholastic Art Awards Scholarship Competition. The senior project should also be of superior quality.

Studio Art I (0701)

1 Unit of Credit

This is a basic visual art course that offers experiences in many media. Students develop original project ideas in painting, drawing, printmaking, and sculpture while covering fundamental artistic concepts. This is a required course for visual art majors or anyone planning to elect any other visual art course. A final examination is required by New York State at the end of this course.

Studio Art II/ Advanced Studio in Art (0704)

1 Unit of Credit

Prerequisite: Studio Art I

*1/2 with permission of instructor

This is an intermediate to advanced level visual art course in which students will work on observational drawing skills and develop projects in painting, drawing, ceramics, sculpture, printmaking, computer art, and portfolio development. This elective can be taken more than once. Upon successful completion of Studio Art II, subsequent elections of this course will be noted on student records as Advanced Studio in Art.

Specialization in Art-Ceramics (0715)

1/2 Unit of Credit

Prerequisite: Studio Art I

Learn "wheel throwing" and hand building skills in clay. Design and build projects using these methods. Learn about glazes and glazing techniques. Fire some projects in the raku method in our outdoor wood fired kiln.

Photography I (0705)

1 Unit of Credit

Prerequisite: Studio Art I

This course will cover basic knowledge of the 35mm camera, black and white film and print development. Experimentation with, and creative use of the photographic image will be encouraged. Ownership of a 35mm camera is suggested. Students provide their own film and paper that may be purchased at our school store.

FINE ART: VISUAL ARTS (*continued*)

Photography II /Advanced Studio in Photography (0709)

1 Unit of Credit

Prerequisite: Photography I

This course option is designed for students who have successfully completed Photography I and wish to continue to develop their skills and artistic vision. Work in this course is developed in traditional photographic techniques as well as in digital and computer enhanced photography using “Adobe Photoshop”. Students may also choose to work on original video productions using “iMovie” and “After Effects”. Portfolios are developed in this class and completed by seniors in Photography II or AP Studio Art. Upon successful completion of Photography II, subsequent elections of this course will be noted on student records as Advanced Studio in Photography.

AP Studio Art (0717)

1 Unit of Credit

Prerequisites: Studio Art I and Studio Art II (for 2D Design Portfolio) or Studio Art I, Photo I and Photo II (for Photography Portfolio)

This course is designed for students who are seriously interested in the practical experience of visual art. AP Studio Art is not based on a written exam. Instead, students submit portfolios for evaluation at the end of the school year. Portfolios may be submitted in 2D Design (including Photography), 3D Design or Drawing. Students are expected to spend significant time outside of class working on their portfolios and related work. The cost of portfolio submission is the same as any AP exam, currently \$92.00. The course will address the following: a sense of quality in a student’s work, the student’s concentration on a particular visual interest or problem and the student’s need for breadth of experience in the formal technical and expressive means of the artist. AP Studio Art is open to sophomores, juniors and seniors who have completed the prerequisite courses. Sophomores and juniors will be considered pre-AP and will work to develop portfolio elements. Seniors must complete the AP portfolio in order to successfully complete the course. Sending the completed portfolio to AP for evaluation is optional. If the portfolio is not sent to AP, school credit only will be awarded for the course; the student’s transcript will read AP Studio Art. Students who wish to apply for college credit for the course must have their portfolio evaluated by the College Board (AP). Course grades are separate from the AP score.

NOTE: There is no formal independent study option. The visual arts teacher grants students independent study status on an individual basis. Students should not assume they automatically qualify after 2 or 3 years of visual art study. Visual Art teachers do not have to grant an independent study option.

MATHEMATICS

The mathematics program is designed to give the largest number of students as much mathematics as will be meaningful and useful to them. Our goals are to teach students an understanding and appreciation of mathematics, how to analyze new situations, to apply previous knowledge, and to develop an effective and efficient use of the latest calculator and computer technology.

New York State is in the process of phasing in a plan for raising the Standards for all students. As this transition has taken place, course titles and descriptions have been modified. Compliance with New York State mandates requires that the following policies be applied:

MATHEMATICS (*continued*)

Class of 2012 – and beyond

1. Each student must earn at least **three** units in mathematics.
2. The second unit must be earned by successful completion of a course, which shall deepen the understanding or broaden the application of concepts studied in the first course. In other words, the two courses must be sequential in nature.
3. Must pass Common Core Algebra Regents Exam.

Algebra 1A (0201)

1 Unit of Credit

This course is the first year of an extended program leading to the Common Core Algebra Regents. Students will have two years to prepare for the regents instead of the typical one year. Topics covered in Algebra 1A include signed numbers, problem solving, monomials/polynomials, solving equations, factoring, ratio, proportion, percent's and some coordinate geometry. Emphasis will be on critical thinking skills, calculator usage, and strategies needed to be successful on the Common Core Algebra Regents Exam. After successfully completing Algebra 1A students will take Algebra 1B during the next school year.

A graphing calculator is required.

Common Core Algebra (0203)

1 Unit of Credit

Common Core Algebra is the first course in a traditional 3-year sequence of math courses. Topics covered include number theory, operations, polynomials, factoring, equations and inequalities, patterns, statistics, functions and relationships. This course will also include an expanded study of functions, using function notation with a focus on linear, quadratic and exponential functions. Additional functions introduced include piece wise, step, absolute value and radical functions. Common Core Algebra introduces language and notation used in subsequent courses. A working knowledge and understanding of the topics of Common Core Algebra is essential for the solution of many problems in science. In June, all students will take the Common Core Algebra Regents Exam.

A graphing calculator is required.

Algebra IB (0203B)

1 Unit of Credit

This course is the second year of an extended program leading to the Common Core Algebra Regents. Algebra IB builds on the concepts started in Algebra IA. The critical areas, called units, deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibits a linear trend, and students engage in methods for analyzing, solving and using quadratic function. In June, all students will be take the Common Core Algebra Regents Exam.

MATHEMATICS (*continued*)

Applied Geometry (0204)

1 Unit of Credit

Prerequisite: Successful completion of Common Core Algebra Regents exam.

This course teaches the basics of Geometry and applies the concepts to strengthen 21st Century skills. Students who complete this course will learn to apply basic geometry concepts such as congruent triangles, logic, geometric relationships and informal mathematical arguments. The final test is a local exam. This course **does not** prepare a student for Common Core Geometry.

Common Core Geometry (0205)

1 Unit of Credit

Prerequisite: Successful completion of Common Core Algebra & Common Core Algebra Regents exam

Common Core Geometry is the second course in a traditional 3-year sequence of math courses. The fundamental purpose of the course in Common Core Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. In June, all students will be take the Common Core Geometry Regents Exam.

Common Core Algebra 2 (0217)

1 Unit of Credit

Prerequisite: Successful completion of both Common Core Algebra & Common Core Algebra Regents exam and Common Core Geometry & Common Core Geometry Regents exam.

Common Core Algebra 2 is the third course in a traditional 3-year sequence of math courses. This course will expand on skills obtained in Algebra and apply them to trigonometry. Topics covered include relations and functions, logarithms, complex numbers, statistics, probability, trigonometric proofs, sequences and series. At this level, students will be expected to demonstrate understanding of mathematical theory and reasoning ability when solving problems in addition to performing mathematical operations. In June, all students will take the Common Core Algebra 2 Regents Exam.

A graphing calculator is required.

Algebra IIA (0218)

1 Unit of Credit

Prerequisite: Successful completion of both Common Core Algebra & Common Core Algebra Regents exam and Common Core Geometry & Common Core Geometry Regents exam.

This course will consist of Common Core Algebra 2 topics including relations and functions, complex numbers, logarithms, sequences and series, and trigonometric proofs. The final examination is a local exam.

A graphing calculator is required.

Algebra IIB

½ Unit of Credit

Prerequisite: Successful completion of: Common Core Algebra & Common Core Algebra Regents exam, Common Core Geometry & Common Core Geometry Regents exam, and Algebra 2A

Algebra 2B is the third semester of Common Core Algebra 2. This course will expand the skills obtained in Algebra 2A. Topics covered include circular functions, probability and statistics.

Students will also spend a significant amount of time reviewing Algebra 2A topics to prepare for the January Regents Examination. At this level, students will be expected to demonstrate understanding of mathematical theory and reasoning ability when solving problems in addition to **MATHEMATICS (continued)**

performing mathematical operations. In January, all students will take the Common Core Algebra 2 Regents Exam.

A graphing calculator is required.

Business Math (0213)

1 Unit of Credit

Prerequisite: Common Core Algebra

This course teaches the practical applications of computational skills as they relate to **personal finance**. Students who complete this course will understand the complex financial world they will encounter during their lives as well as prepare students for college level business programs. Topics covered include: net income, checking and savings accounts, cash purchases, charge accounts and credit cards, loans, car and housing costs, insurance and investments, budgeting, personnel, production, purchasing, sales and marketing, inventory and accounting and corporate finance. A project based learning model is used to disseminate this curriculum.

The course is for students who have successfully completed Common Core Algebra I and who have passed the Common Core Algebra Regents.

A calculator is required.

Math 12 (Spring) (0219)

½ Unit of Credit

Prerequisite: Successful completion of Common Core Algebra 2 or Algebra II B

Students enrolled in this course will review and strengthen basic algebra and trigonometry skills from Common Core Algebra, Common Core Geometry, and Common Core Algebra 2. The course also includes a general study of graphing techniques involving properties of polynomial functions, rational function and the conic sections. The correct and efficient use of the graphing calculator will be emphasized.

Math 12 should be viewed as a course primarily for the student who: a) has done reasonably well in previous math courses; b) has expectations of taking a college algebra course (as required by many colleges) but who plans to pursue studies not mathematically or scientifically oriented; or c) wishes to maintain present skill in mathematics. The final test is a local exam.

A graphing calculator is required.

Pre-Calculus (0211) (MAT 143)

1 Unit of Credit

Prerequisite: Successful completion of Common Core Algebra 2 Regents exam and pass Common Core Algebra 2. Students may earn 4 college credits through O.C.C. (SUNY) by completing this course.

This course is designed to provide the necessary foundation for a standard calculus course. Topics include absolute value and quadratic inequalities, functions and their equations, exponential and logarithmic functions and their applications, right triangle trigonometry, law of sines and law of cosines, trigonometric functions (circular) and their inverses, trigonometric identities and equations, additions and multiple angle formulas, and binomial theorem.

MATHEMATICS (*continued*)

AP Calculus (0212)

1 Unit of Credit

Prerequisite: Successful completion of Pre-Calculus and maintain an overall average of 85 or teacher approval.

This course is open only to students who have completed four years of mathematics, including Pre-Calculus. The course will be comparable to a college freshman calculus course including theory, proofs, and applications of differential and the integral calculus. Students are required to take the AP Calculus Advanced Placement exam in May.

A graphing calculator is recommended.

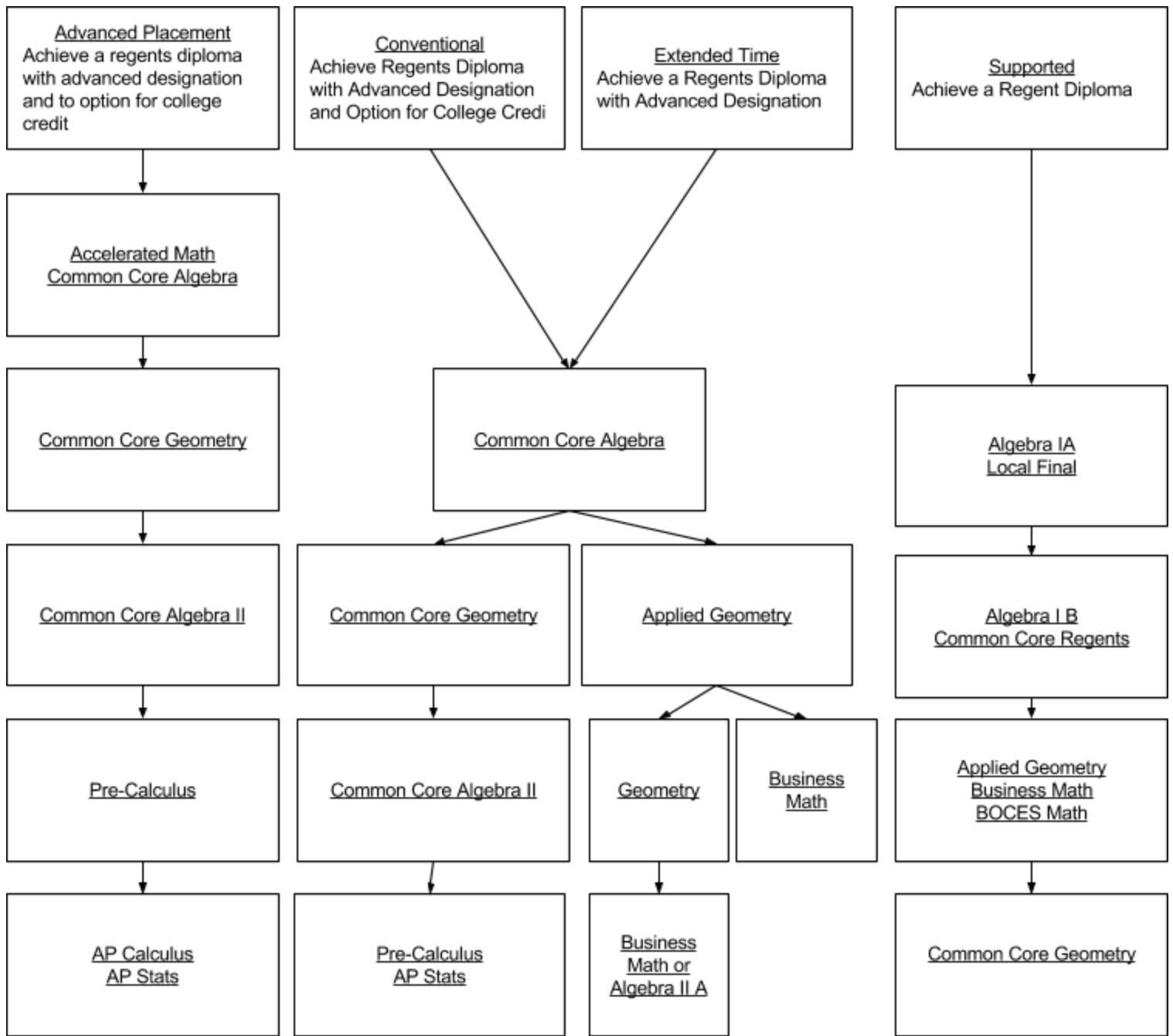
AP Statistics (0206)

1 Unit of Credit

PREREQUISITE: Pass the Common Core Algebra 2 Regents Exam and/or pass Common Core Algebra 2 .

This course is open only to mathematics students who have completed three years of mathematics including Common Core Algebra 2 . The course will follow the AP Statistics curriculum. The course includes basic concepts of descriptive statistics, data collection, probability and random variables in preparation to learn how to use statistical inference, which will be covered in the second semester of the course. Because of the nature of the course, students will be required to take the course for the entire year.

A graphing calculator is required and ALL students will be expected to take the AP exam.



PHYSICAL EDUCATION

The Physical Education curriculum of Marcellus Central Schools was established to meet the New York State Standards. Our units and lesson plans will incorporate the following New York State Standards:

1. Students will acquire the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.
 - Students will perform basic motor and manipulative skills. They will attain competency in a variety of physical activities and proficiency in a few select complex motor sports activities. Students will design personal fitness programs to improve cardio respiratory, endurance, flexibility, and muscular strength.
2. Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.
 - Students will demonstrate responsible personal and social behavior while engaged in physical activity. They will understand that physical activity provides the opportunity for enjoyment, challenge, self-expression and communication. Students will be able to identify safety hazards and react effectively to ensure safe and positive experience for all participants.
3. Students will understand and be able to manage their personal and community resources.
 - Students will be aware of and able to access opportunities available to them within their community to engage in physical activity. They will be informed consumers and be able to evaluate facilities and programs. Students will also be aware of some career opportunities in the fields of physical education and sports.

Ninth and Tenth Grades (0801 & 0802)

1/8 Unit of Credit Each Marking Period

Classes will be devoted to developing skills and knowledge in a wide variety of activities. Some of the activities include: archery, football, soccer, volleyball, team handball, badminton, golf, softball, weight training, basketball, tennis, fitness, dance, track, cooperative games

Eleventh and Twelfth Grades (0803)

1/8 Unit of Credit Each Marking Period

Students will develop advanced skills and knowledge of selected activities and develop an individual personal fitness program to meet their own specific needs.

An overview of Senior High Policy and Procedures

A. SCHEDULING:

- All students in grades 9 - 12 shall be enrolled and assigned to Physical Education classes by the School Counselors.
- All students in grades 9-12 shall receive a minimum of 2 1/2 periods of Phys Ed. per week (each period is 40 minutes total).
- All schedule changes must be made through the School Counselor with approval of the Physical Education teacher.

PHYSICAL EDUCATION (*continued*)

B. **EXCUSES:** *Medical*

All students must participate in Physical Education classes as scheduled (exceptions shall be as follows):

- For a “one or two day” exclusion, a parental note shall be sufficient. Note must be initialed by nurse and Physical Education teacher.
- For exemptions of longer duration, a medical excuse must be completed and signed by the student's personal physician and returned to the school nurse. As soon as it is evident that a medical excuse will be "long term," a "suggested participation" form should be sent to the doctor signing the medical excuse for the doctor's recommendations for the student's P.E. participation. These should be returned in a timely manner to the school nurse and forwarded to the P.E. teacher for program planning.

The excused student shall continue to report to and remain a part of the Phys. Ed. class.

C. **APPAREL:** (*Board of Education By-Law*)

- All students, grades 5 - 12 are required to have a change of clothes for physical education class. The following articles of dress are required: sneakers, socks, loose comfortable fitting shorts, t-shirt (PE apparel does not include jewelry, hats or buckles).
- An unprepared student is given a "U" (unprepared) mark for the class.
- All "U" marks shall be made up **one-for-one**. Failure to make up any "U" marks shall result in losing 33 points off your grade for the week.
 - **Example:** Your grade for the week is “98”. You were unprepared (U) once that week. After 33 points are deducted, your grade for the week would be “65”.
 - If you were unprepared twice, (-66), grade for that week would be “32”.
 - If you were unprepared three times, your grade for that week would be a “0”.

D. **ATTENDANCE:** PE teachers will follow school attendance procedures.

E. **CLASS MAKE-UPS:**

- Class should be made up with one's own teacher. Exceptions must be cleared with individual teachers.
- Make-up classes should be on the same variety as classes missed; however, this should be left to the discretion of the teacher.
- It is the student's responsibility to find out how many classes he/she must make up and make arrangements to make them up.

F. **INCOMPLETES:** PE teachers will follow school policy on incompletes.

G. **EVALUATION:** Physical Education grade is part of the student's GPA (grade point average). Grades will be determined by skill assessment, participation assessment, knowledge assessment, attitude, deportment, and preparation.

H. **GRADUATION REQUIREMENT:**

- Student must earn the equivalent of 2 units of credit in PE.
- 1/8 unit of credit will be given for each marking period of physical education that is successfully completed.
- Students who graduate prior to attending 8 semesters in the high school must have met the requirement for each marking period of physical education credit up to graduation.

SCIENCE

Three units of credit in science will be required for graduation. One credit must be the Living Environment course. A second credit must include either Earth Science, Chemistry, or Physics. The third credit may include a Regents course or other elective. For graduation, a student must pass 3 science credits, 2 Regents courses (one must be Living Environment), and 1 Regents exam.

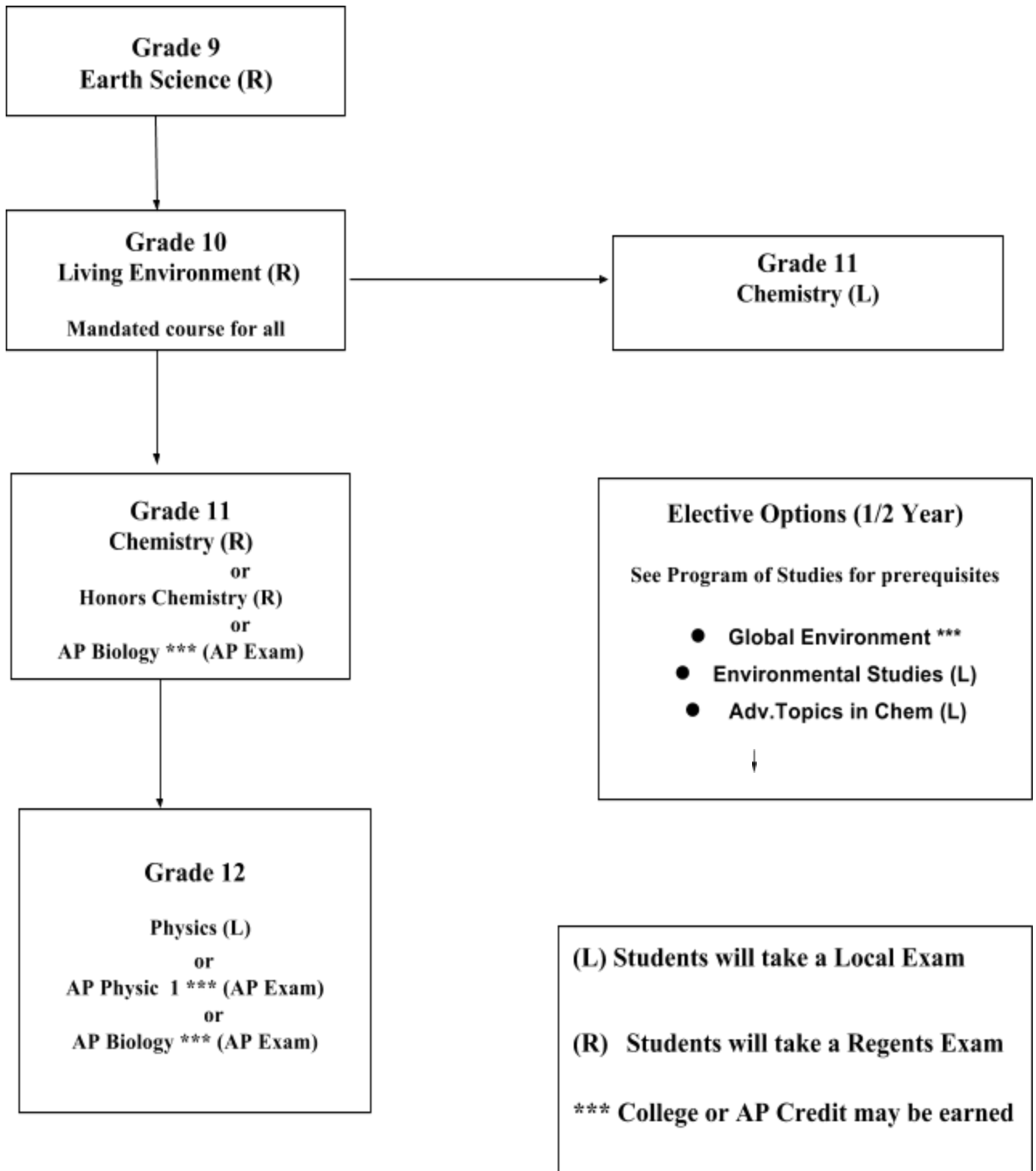
BECAUSE OF THE SPECIAL NATURE OF THE SCIENCE CURRICULUM AND STATE REGULATIONS ON THE PROGRAM, THESE POLICIES APPLY:

1. Students removing any materials or objects from any science room may be suspended from the course and/or school for an appropriate period of time.
2. Students tampering with science equipment which endangers the safety of any student or teacher may be suspended from the course and/or school for an appropriate period of time.
3. Any student who completes 1200 minutes of laboratory exercise satisfactorily or the equivalent in science may take the Regents exam in that course.
4. If a student is absent, he or she will be allowed to make up the lab or another lab will be substituted for the original. If, in the professional opinion of the teacher, the student is unable to make up the work, the parent will be notified, and a conference scheduled to pursue the matter.

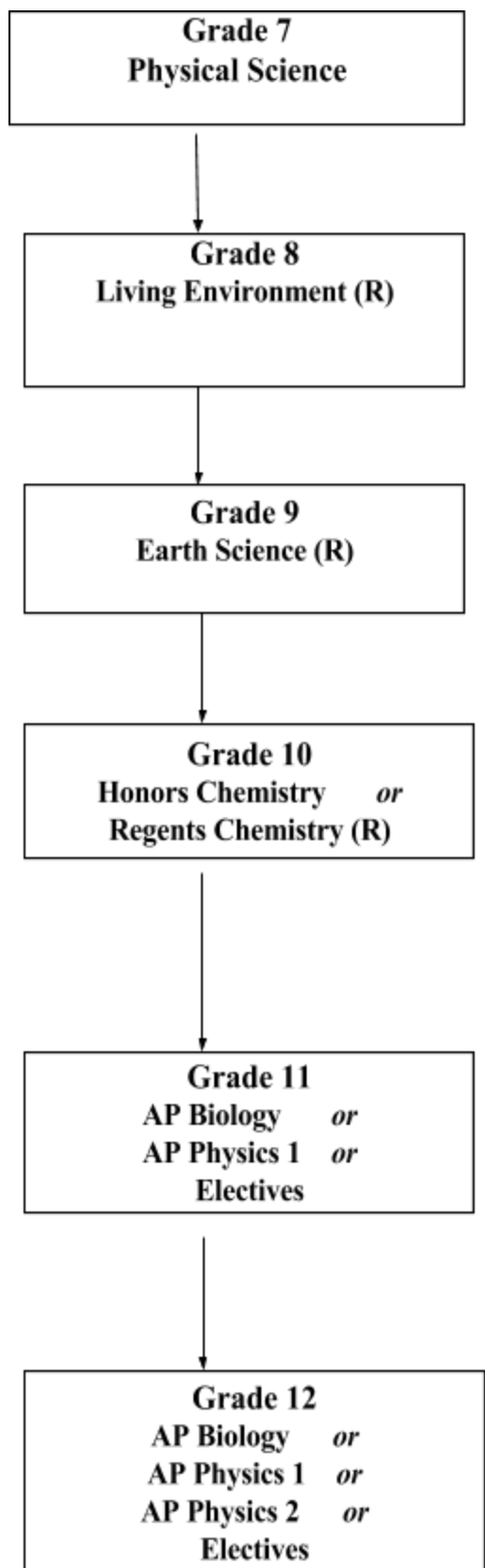
The science curriculum consists of those courses, activities, and units of instruction that are designed to meet every student's educational needs related to science. Emphasis is upon: 1) the importance of major scientific principles and their discovery, understanding, and application; 2) the development of competence in the use of the methods of science; 3) the development of desirable attitudes, interests and appreciation of science and its applications; and 4) the recognition of, and preparation for, the role of science in the evolving atomic and space age.

Learning is conducted in classroom-laboratory situations that provide opportunities for individual and group instruction, investigation, and experimentation. Students participate in field activities that provide opportunities to apply methods and principles of science to the investigation of problems of living.

REGENTS DIPLOMA



ACCELERATED SCIENCE



Elective Options (1/2 Year)
See Program of Studies for prerequisites

- Global Environment ***
- Environmental Studies (L)
- Adv.Topics in Chem. (L)

(L) Students will take a Local Exam
(R) Students will take a Regents Exam
******* College or AP Credit may be earned

SCIENCE (*continued*)

Physical Setting/Earth Science (0301)

1 Unit of Credit

This is a Regents course with emphasis placed on the application of basic scientific principles to the special field of earth science. Areas of concentration include: astronomy, geology, meteorology and oceanography. (The course stresses scientific literacy, critical thinking, and problem solving through inferential reasoning, as well as inductive and deductive reasoning.) The completion of 1200 minutes of laboratory exercise in a satisfactory manner is a prerequisite for admission to the final exam. The Regents will be the final exam.

Regents Living Environment (Biology) (0302)

1 Unit of Credit

The Living Environment focuses on the interactions of living organisms with their environment and the processes therein. The major themes of the course are as follows: from Unicellular to Multi-cellular, Biochemistry of Life, Evolution, Genetics, Population Dynamics, Reproduction and Development, and Ecology.

The overlying themes of how an organism maintains homeostasis and interacts with its environment are addressed throughout the course. This course is required for graduation by NYS. Any student not passing the Living Environment course will need to repeat the course until they successfully complete the course. The completion of 1200 minutes of laboratory exercise in a satisfactory manner is required by NYS to pass the course. The final exam is the Regents exam.

Human Ecology (0315)

1/2 Unit of Credit

The Human Ecology program involves the development of an awareness of the need for physical, mental, emotional, social, and psychological well being within one's own environment. Emphasis is placed on the human life cycle (birth, childhood, adolescence, young adult, adult, old age, and death) and problems that are encountered throughout this cycle. This course is required for graduation and is usually taken in the 10th grade.

Regents Chemistry (0303)

1 Unit of Credit

*Prerequisites: Students enrolling in the Regents course in chemistry **must** have successfully passed the Algebra exam. They also should have passed and successfully completed Geometry. While very little of the content of Geometry is used directly in chemistry, the experience in setting up and solving problems, and the analytical thinking developed in this course is essential in chemistry.*

Chemistry involves the study of elements and compounds, their structure, chemical and physical properties, and their relationships to each other and man. Chemical calculations are also stressed. Laboratory technique and experiments are developed once a week during a two-consecutive period lab. The completion of 1200 minutes of laboratory exercise in a satisfactory manner is required by the State to take the Regents exam in Chemistry. The Regents Exam in Chemistry will be the final exam.

Chemistry (0308)

1 Unit of Credit

Prerequisites: Successful completion of Algebra, Regents Living Environment and a Regents Earth Science, as well as passed each of the Regents examinations.

SCIENCE (*continued*)

This course will teach the fundamental chemical principles needed to understand chemically related societal and environmental issues. A focus on problem-solving and decision making will be used to help students develop skills that will help them to be active and informed citizens. We use the American Chemical society textbook and accompanying curriculum: *Chemistry in the Community*.

The major content areas in General Chemistry will be:

- I. Water: Exploring Solutions
 - A. Sources and Uses of Water
 - B. Looking at Water and its Contaminants
 - C. Investigating the Cause of the Fish Kill
 - D. Water Purification and Treatment
- II. Materials: Structure and Uses
 - A. Why We Use What We Do
 - B. Earth's Mineral Resources
 - C. Conserving Matter
 - D. Materials: Designing for Desired Properties
- III. Petroleum: Breaking and Making Bonds
 - A. What is Petroleum?
 - B. Petroleum as an Energy Source
 - C. Petroleum as a Building Material Source
 - D. Energy Alternatives to Petroleum
- IV. Air: chemistry and the Atmosphere
 - A. Gases in the Atmosphere
 - B. Radiation and Climate
 - C. Acids in the Atmosphere
 - D. Air Pollution: Sources, Effects, and Solutions

There will be a strong laboratory component incorporated into the topics being covered. These activities will reinforce concepts, provide practice in laboratory safety procedures, and teach students how to analyze data using graphs and other types of comparisons.

This course meets the requirement of a Physical Science Course toward completion of a Regents diploma. Students must complete 1200 minutes of laboratory exercise, but will not take the Regents exam in Chemistry.

Honors Chemistry (0313)

1 Unit of Credit

Prerequisites: Prior completion of Algebra is required and Algebra II is recommended. Algebra II must be taken as a co-requisite if not previously completed. Students must have achieved a 90% or better as a final average in Algebra, Earth Science and Living Environment courses. Students must be recommended by the science department for work ethic and potential for success. Students must maintain an average of 85% to remain in the class.

All of the above description of Regents Chemistry applies to this course. In addition, there will be more in-depth study of those same topics and a greater emphasis on problem solving. This course is designed to challenge talented science students.

SCIENCE (*continued*)

Many topics are explored beyond the scope of the Regent's chemistry classes; especially stoichiometry, atomic structure, acid-base chemistry and equilibrium concepts. The completion of 1200 minutes of laboratory exercise in a satisfactory manner is required by NYS to pass the course. The final exam will be the Chemistry Regents.

AP Physics 1 (0304)

1 Unit of Credit

Prerequisites: Students enrolling in this class must have successfully completed Algebra and Geometry. They should have completed, or, at least, be currently enrolled in Algebra II.

AP Physics 1 students will explore principles of Newtonian mechanics (including rotational motion); work energy and power; mechanical waves and sounds; and introductory, simple circuits. The course is based on six Big Ideas which encompass core scientific principles, theories and processes that cut across the traditional boundaries and provide a broad way of thinking about the physical world. This course is equivalent to a first semester college physics course. This course requires that 25% of the instructional time will be spent in hand-on laboratory work, with the emphasis in inquiry-based investigations that provide students with opportunities to apply the science practices.

Physics (0309)

1 Unit of Credit

Prerequisites: Successful completion of Algebra. Additional courses in math and science are recommended.

The General Physics course is designed for students who have fulfilled their science requirement and are interested in a fourth science credit, but do not wish to take Advanced Placement. Students must be proficient in algebra, since much of the problem solving in the course involved algebraic equations. Each unit will be presented through a combination of: teacher lecture, worksheets, and laboratory exercises. Each unit will have a unit test. Students may bring and use their own reference materials on tests. There will also be one group project during each marking period. This course will have a final assessment.

The following topics will be covered:

1. Linear Motion
2. Newton's Laws
3. Work, Power, and Energy
4. Simple Machines
5. Waves and Sound
6. Light
7. Optics
8. Static Electricity
9. Magnetism
10. Current Electricity
11. Nuclear Physics

SCIENCE (*continued*)

AP Physics 2 (0322)

1 Unit of Credit

Prerequisites: Successful completion of Regents Earth Science, Regents Living Environment, Regents Chemistry, Algebra and Algebra II, and must be enrolled in either Pre-Calculus or Calculus for their senior year. Student must have also successfully completed AP Physics 1. Students in this course must have a very strong background in math and science, and should have received an average of 90 or above in each of these courses. Students who achieved these prerequisites may be selected by departmental recommendation.

AP Physics 2 students explore principles of fluids, thermodynamic, electricity, magnetism, optics, and topics in modern physics. The course is based on seven Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. This course is **equivalent** to a **second semester** college physics course. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with the emphasis in inquire-bases investigations that provide students with opportunities to apply the science practices.

Advanced Topics in Chemistry (0310)

1/2 Unit of Credit

Prerequisites: Successful completion of Honors/Regents Chemistry.

Advanced Topics in Chemistry is a half-year elective class. This course is open to any student who has taken and passed Regents or Honors Chemistry. The course is designed to help prepare students for college level Chemistry and will be helpful for those students going on to study life science, physical science or engineering as a college major. This course will cover dimensional analysis, inorganic nomenclature, stoichiometry, atomic structure, chemical periodicity, thermodynamics and fundamentals of bonding. There is a laboratory component.

Environmental Studies (0311)

1/2 Unit of Credit

Prerequisites: Earth Science and Living Environment

This course will be centered on investigating the environment surrounding Marcellus High School and specifically focusing on the biotic and abiotic factors at work there. This "hands-on" course will give the students the opportunity to apply much of the information and skills that they have gathered in earlier course work in science. Students will also be given the chance to learn how to use taxonomic keys to identify various types of trees, insects, flowers, and animals.

Equally important will be the emphasis placed on current events and environmental problems, both locally and globally. Students will become familiar with the ecological, social, economic, and political aspects of various environmental issues and try to determine ways that these issues can be resolved.

The ultimate goal of this course is to increase the environmental awareness of the student, as well as to develop students who will be able to participate as informed and active citizens.

SCIENCE (*continued*)

Global Environment (0312)

½ Unit of Credit

Prerequisites: Successful completion of Regents Earth Science, Living Environment, and Chemistry.

Global Environment (EFB 120) provides students with an overview of global environmental problems, current rates of global change, and potential impacts on human populations and the quality of life. While there is a global nature to the subject matter, opportunities abound for including course topics based on local and regional interests and problems. Students will need to understand the broad, global context of environmental change and develop an appreciation for the linkages among human social systems and biophysical systems. Global Environment is a course offered in conjunction with SUNY ESF and offers the student the opportunity to earn three college credits as well as ½ unit of a high school credit. This course is a college level course and will give the students a rigorous preparation for future college experiences.

Advanced Placement Biology (0320)

1 Unit of Credit

Prerequisites: Successful completion of Regents Earth Science, Regents Living Environment, and Regents Chemistry and Mastery (85) on each of the Regents exams or permission of the Science Department.

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes — energy and communication, genetics, information transfer, ecology, and interactions. Students will develop a conceptual framework for modern biology and will gain an understanding of science as a process. All students enrolled in this course are expected to take the Advanced Placement Exam.

SOCIAL STUDIES

The social studies program is a four-year sequence. New York State Regents Tests are administered at the end of the Global History & Geography course in grade 10 and after completion of the U.S. History & Government course in grade 11.

Global History & Geography I (0101)

1 Unit of Credit

This first year of a two-year course in Global History will chronologically study the history of the world beginning with Ancient Civilizations (around 4000 B.C.) up through the 17th century. Regions to be covered are Europe, the Middle East, Africa, East Asia, Southeast Asia, Latin America, and South Asia. At the end of the second year (10th grade) students will be required to take and pass the **Regents Exam in Global History & Geography**. *Passage of this course is required for graduation.*

SOCIAL STUDIES (*continued*)

Global History & Geography II (0102)

1 Unit of Credit

This second year of a two-year course in Global History will be a study of the history of the world from the 17th Century to today. Interactions and linkages among nations and peoples will be explored within specific time periods to ascertain how the past influences the present. The perspectives of history and the social sciences will be treated in each area studied. Students will be required to take and pass the **Regents Exam in Global History & Geography** at the end of the course which is required for graduation. *Passage of this course is required for graduation.*

U.S. History & Government (0103)

1 Unit of Credit

This course will include a chronological survey of United States history in general; constitutional and legal issues will be explored in depth, as will the problems of a dynamic and industrial society in an increasingly complex and technology-oriented world. The **Regents examination in U.S. History & Government** will be taken at the end of this course. *Students must pass both the course and the Regents Examination in order to graduate.*

Participation in Government (0104) (1 Semester)

1/2 Unit of Credit

Participation in Government is one of the two required Social Studies courses for seniors. It is designed to be a culminating course of study that focuses on Social Studies Learning Standard 5-Civics, Citizenship, and Government. Units of study may include government theory, comparative politics, state government, local government, the federal government, American politics, the judiciary, foreign policy, domestic policy, the media, and others. Students will apply this content to the study of contemporary and/or historic public issues and will increase awareness of their rights and responsibilities as citizens. Additional components include court and government meeting observations. A final examination will be administered upon completion of this course. *Passage of this course is required for graduation.*

Economics, The Enterprise System & Finance (0105) (1 Semester)

1/2 Unit of Credit

This course is one of the two components of Social Studies for seniors. This course includes the study of major macro - and micro - economic concepts, the economic system of the U.S. and how it operates, the roles that various components of the American economic system play, economic global interdependence, and financial literacy. A final exam will be administered upon completion of this course. *Passage of this course is required for graduation.*

Law and Society (0110)

1/2 Unit of Credit

Prerequisite: Seniors who have achieved at least a 70% in previous Social Studies courses.

This course will trace the development of law by examining law and legal systems from ancient times to the present. A special focus will be placed on the development of Western law as rooted in Roman and British law. Different types of law will be examined such as Criminal Law, Civil Law, Constitutional Law and International Law. This course will also examine the American Judicial System, and students will participate in Law-Related activities applicable to N.Y.S. curriculum on Law-Related Education.

Advanced / College Level Course Offerings in Social Studies

United States History – AP (0108)

1 Unit of Credit

This course is comparable to a freshman college course in American History. It will prepare highly-motivated juniors and seniors to take the Advanced Placement exam in United States History and earn college credit. Students are required to take the Advanced Placement exam in May. Juniors enrolled will also take the New York State Regents Examination in **U.S. History & Government** as this course also follows the above curriculum for U.S. History & Government.

Students must pass the Regents Examination as well as the course in order to graduate.

U.S. Government & Politics – AP (0107)

1 Unit of Credit

Pre-requisite: US History

This course will give students an analytical perspective on government and politics in the United States. This course involves both the studies of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. Students are required to take the Advanced Placement Exam in May. *Passage of this course is required for graduation.*

SUPA Economics (0112) (1 Semester)

1/2 Unit of Credit

Prerequisite: US History, Algebra, Geometry

Economics 203, *Economic Ideas and Issues*, is an introduction to mainstream economic thought designed for students with a liberal arts interest. The course begins with a presentation of the scientific method, which is then used to analyze the question: *How do individuals and societies make choices when they are faced with scarcity?*

The course takes students from the micro economic to the macroeconomic level, emphasizing the connection between these two perspectives. Students examine the benefits, as well as the problems, inherent in a market-oriented economy. The course prepares students to analyze and understand the on-going economic policy debate between interventionists and non-interventionists. Students should understand basic algebra and geometry. More importantly, they should be able to follow carefully reasoned logical development of a theoretical model and to apply that model to their own experiences. **Economics 203** is designed to help students understand “how the world works.”

To the extent that students master the material presented in the course they will have a solid foundation in mainstream economic thought that can be applied to everyday experience as well as further study in economics or the social sciences.

This course is designed to be taken in place of Economics as a senior level course. All students will be expected to take this class as an enrolled member of Syracuse University.

Passage of this course is required for graduation.

WORLD LANGUAGES

The acquisition of second language skills on an ever-increasing functional level is the major aim of the department. These skills include the ability to understand a second language when spoken, speak the target language in direct communication with people of another culture, read another language with ease and enjoyment, and express one's thoughts and ideas clearly and correctly in writing in a language other than English.

The study of another language also involves a gradual expanding and deepening of the knowledge of a foreign country - the culture and literature. As a consequence, students attain a better perspective of American culture and a greater awareness of cultural similarities and differences.

French 1 (0411)

1 Unit of Credit

First-year French introduces students to basic language tools. Emphasis is placed on speaking and oral comprehension skills that are developed into reading and writing skills. From the mastery of basic conversational skills, the students learn to express themselves in the present and past tense of regular and irregular verbs. Included in this course are studies of the geography, history, and daily living in France and other Francophone countries.

French 2 (0412)

1 Unit of Credit

Prerequisite – Students qualifying for this course have successfully completed French I.

Second-year French provides more intensive and extensive development of the four skills introduced in French 1. Students will simulate a living-abroad program in France where the students “move to Paris.” Cultural development is enhanced as students become aware of living conditions, famous landmarks, and daily habits of Parisians. Students will expand their vocabulary and reading comprehension skills using authentic French websites.

French 3 (0413)

1 Unit of Credit

Prerequisite – Students qualifying for this course have successfully completed French II.

French 3 provides added vocabulary expansion and finer distinction in structural patterns. Students will learn the essentials of grammar including syntax and verb tense. The course will emphasize all elements of a language: speaking, listening, reading, and writing. Students will be able to carry on discussions in French by the end of the course; they will also be able to write a small composition or story. There will be regular listening and speaking activities in the course, including web-based activities. Culturally, students will explore the Francophone world, including Quebec, Africa, the Caribbean, and Western Europe.

French 4 (0414)

1 Unit of Credit

Students qualifying for this course have successfully completed French III and have a teacher recommendation.

Fourth-year French offers 3 college credits through SUNY Oswego, and thus is a demanding course that is taught primarily in French. Students will continue to develop language skills from previous years; students will study French language structures and the class offers frequent oral practice of the language. Culturally, students study some of the major French contributions to literature. They will read a short novel, poetry, and short stories. In addition, students will also explore contemporary French culture through music and media.

WORLD LANGUAGES (*continued*)

French 5 (0415)

Students qualifying for this course have successfully completed the French IV course, the final exam and have teacher recommendation.

French 5, also offers the students the opportunity to earn 3 college credits from SUNY Oswego. In French 5, students will continue the intensive study of grammar begun in French 4. The course will be conducted entirely in French and students will speak frequently in the language. Students will complete a course of study that includes a unit on the German occupation of France, symbolist poets, Haiti, a reading of Notre-Dame de Paris, and French Fairy Tales. Each unit will include a variety of selections from text and film for student's reflection. Students will read current events in French, and respond to authentic French sources such as podcast, the news, and interviews. Students will also participate in a pedagogical unit where they will teach younger students at KCH. Finally for interested students, there will be the option of taking the AP examination in the spring.

Spanish 1 (0401)

1 Unit of Credit

This course is an introduction to the basic language tools with emphasis on speaking and comprehension skills that are developed into reading and writing skills. Students learn to express themselves in the present tense. Included in this course are various aspects of Spanish culture and daily living. At the end of the second semester, more class time is conducted in Spanish.

Spanish 2 (0402)

1 Unit of Credit

Prerequisite – students must have successfully completed Spanish 1.

Spanish 2 provides an intensive and extensive development of the four skills introduced in Spanish I. Although listening and speaking are still a major part of the program, emphasis is also placed on the skills of reading and writing. In addition, extemporaneous speaking in Spanish is introduced through the use of individual presentations and group skits. Studies related to the people and culture of Spain and Latin America receive increased attention.

Spanish 3 (0403)

1 Unit of Credit

Prerequisite – students must have successfully completed Spanish 2.

Spanish 3 provides added vocabulary expansion and finer distinction in structural patterns. The course will emphasize all elements of a language: speaking, listening, reading, and writing. Students will be able to carry on discussions in Spanish by the end of the course; they will also be able to write a small composition or story. There will be regular listening and speaking activities in the course, including web based activities. A research unit in Latin music, as well as a video series called "Mi Vida Loca" is completed in this course.

Spanish 4 (0404)

1 Unit of Credit

Students qualifying for this course have successfully completed the Spanish 3 course and have teacher recommendation.

Fourth-year Spanish offers the opportunity for 3 college credits through SUNY Oswego, and thus is a more demanding course that is taught primarily in Spanish. Students will continue to develop language skills from previous years; students will study Spanish language structures and the class offers frequent oral practice of the language. Culturally, students will explore various topics through use of literature, CD's and DVD's.

WORLD LANGUAGES (*continued*)

Spanish 5 (0405)

1 Unit of Credit

Prerequisite: Successful completion of Spanish 4, the final exam and have teacher recommendation.

Spanish 5 also offers the students the opportunity to earn 3 college credits through SUNY Oswego. This is an advanced level course which intends to refine, enhance, and perfect previously learned language skills as well as to broaden the students' understanding of Hispanic culture and foster interest in continuing the study of Spanish in college. Students will continue their study of complex grammar and syntax. By the end of this course, students will be able to write college level compositions in Spanish and carry on sophisticated discussions in the language. Finally, for interested students, there will be the option of taking the AP examination in the spring.

Latin I (0416)

1 Unit of Credit

This course is an elective and is only open to students who have successfully completed a modern language Regents sequence with an 85% or better. It is highly recommended that this course be taken in conjunction with an advanced level language course-either Level IV or V.

Latin I introduces the students to ancient Roman culture, mythology, and at the conclusion of their first year of Latin, students will have studied basic Latin grammar and will have read classical selections of moderate difficulty. In addition, each student is expected to take the National Latin Examination in March and to compete for awards and medals. Regular class attendance is crucial to ensure success in this course. Students pursuing a career in medicine or law might think about taking this course along with Advanced French or Advanced Spanish.

Non-Departmental Electives

Psychology (0109)

1/2 Unit of Credit

This course is designed to introduce the student to the many facets of human behavior. Emphasis will be placed on the learning process, memory and intelligence, physiological involvement, theories of personality, child development and social adjustment. In addition, mental health and mental illness are investigated highlighting various types of therapy that psychologists use. This course will provide a basic understanding of each of these processes.

Yearbook (0580)

1 Unit of Credit

This is a hands-on, activity-based course which focuses on the development of skills leading to a specific finished product – the school yearbook. This course will engage students in the basics of yearbook production including graphic design, copywriting and editing, photo composition, interviewing techniques, ad sales, budget management, marketing and project management skills. Members of the staff are expected to have a high level of maturity and the ability to work independently. This is a wonderful opportunity for members of the team to exercise their creativity, while developing new skills. Creating the yearbook is a fun process and the end result of all the effort is a product the students can be proud of.