



MAPLE HILL SR HIGH SCHOOL

COURSE SELECTION GUIDE

2020-2021

TABLE OF CONTENTS

Graduation Requirements	3
Core Requirements	4
Career & Technical Education	4
Grade Classification	5
Recommended Course Preparation for College	5
Doubling Courses	5
The Guidance Program	6
Advisory	6
Art	7
Business Education	9
English	11
Foreign Language	14
Mathematics	15
Music	17
Physical Education/Health Education/Personal Wellness	18
Science	20
Social Studies	24
Technology	29
Career and Technical Education Offerings	31
Distance Learning	33
Implications for Students with Disabilities	34
Transfer Students	34
Early Admission to College	34
Options for Seniors	35
Alternate Ways of Earning Credit	35
Remediation - Grades 9-12	35
Student Annual Review – Grades 7-12	35
Community Involvement	35

The Schodack Central School District hereby advises students, parents, employees, and the general public that it offers educational opportunities, without regard to sex, race, color, national origin, handicap or religion.

Inquiries regarding this nondiscrimination policy may be directed to: Title IX and Section 504 Compliance Officer, Mr. Jason M. Chevrier, Superintendent of Schools, Schodack Central School District, Castleton-on-Hudson, New York 12033, (518) 732-2297. jchevrier@schodack.k12.ny.us

As you plan your high school schedule, you must keep in mind long-range goals. Maple Hill can prepare you for college or for a career. Since you may not know what you plan to do after high school, you should schedule challenging courses whenever possible. Taking rigorous classes will give you the most options in your senior year.

Students often ask, "Exactly what courses do I need for college?" There is no one answer, but most require several years of math, laboratory sciences and a sequence in a foreign language. If you are planning to work, remember that business and Career Tech courses can give you the skills required by some employers. Your successes after high school may well depend, in part, upon your course selection.

Graduation Requirements - Core Requirements

Three diplomas are offered at Maple Hill. A Regents Diploma and the Advanced Regents Endorsed Diploma will require 22 credits. The College Preparatory Diploma will require 25 credits with four years of math, science and foreign language. In order to obtain the following diplomas students must pass the indicated required units of credit:

Required Units of Credit			
Courses	Regents* Diploma	Advanced Regents* Diploma	College Preparatory Diploma
English	4	4	4
Social Studies	4	4	4
Mathematics	3	3	4
Science	3	3	4
Health	½	½	½
Fine Arts	1	1	1
2 nd Fine Arts or Practical Arts	1	1	1
Foreign Language	1	3 (a)	4
Physical Education	2	2	2
Sequence Courses/Electives	2 ½	½ - 4 (b)	½
Total Required (minimum)	22	22-23 ½ (b)	25

- (a) A student may earn an Advanced Regents diploma by completing 3 credits in a single foreign language or a 5 credit Fine Arts sequence or a 5 credit Career and Technical Education sequence. Students who choose the Fine Arts or Career and Technical Education sequence must pass one year of foreign language.
- (b) Students choosing a 5 credit Fine Arts or 5 credit Career and Technical Education sequence will replace the 2 additional credits of foreign language with sequence courses and will be required to take 2-3 more credits in the sequence (depending on the sequence) to meet minimum requirements.

New York State has designated multiple pathway options to meet Regents exam requirements. Most students will complete the requirement by passing 5 Regents exams – the ELA Regents, a Math Regents, a Science Regents, a Social Studies Regents (typically the Global Studies Regents) and one other Regents (typically the US History & Government Regents.) Alternative pathways are available and will be reviewed with students who may require them.

To earn the Advanced Regents diploma, students must pass the ELA, Global and U.S. History Regents exams, three Math Regents exams and two Science Regents exams. A comprehensive foreign language exam will be given after the third year of language (if choosing the foreign language sequence option.)

*The Regents and Advanced Regents diploma will be designated as "Honors" if the computed average score of all required Regents exams for the diploma is 90 or better. An annotation of Mastery in Math will be denoted when students earning the Advanced Regents diploma score an 85 or better on 3 Regents exams in Mathematics and an annotation of Mastery in Science will be denoted when students earning the Advanced Regents diploma score an 85 or better on 3 Regents exams in Science.

Core Requirements

- English - Four years are required. Students must pass the Regents exam given at the end of the junior year.
- Social Studies - Four years are required. At the end of the second year in Global Studies, and at the end of the third year in American History and Government, students will take Regents examinations. During the senior year, students will take Government and Economics.
- Mathematics - Three years are required. All students must pass a Regents exam before graduation.
- Science - Three years are required. Students must pass a Regents exam before graduation when following the typical pathway.
- Health - One half unit is required and is usually scheduled during the junior year.
- Fine Arts - One unit is required. Students may complete this requirement by taking one credit among the following courses: Band, Chorus, Music Performance (which includes both band and chorus), Music In Our Lives, Music Theory, American Pop Music, Studio in Art, Drawing and Painting, Ceramics, Sculpture, Photography, Animation and Design and Drawing.
- One additional unit of some combination of Fine and/or Practical Arts is required. Students may take a full credit in either or a half credit from each. Courses in the Practical Arts include Business and Technology. Generally, students should try to complete both Fine Arts and the additional Fine/Practical Arts credits before the junior year.
- Foreign Language - Students must take a year of language in grade nine. Students identified by the Committee on Special Education may be exempted from the language requirement. A three-unit sequence in Spanish is the usual pathway for the Advanced Regents diploma. The College Prep diploma **requires** four years of a foreign language.
- Physical Education - All students must take physical education each year. A minimum of two credits is needed for graduation (.5 credit per year).

Career & Technical Education

The intent of Maple Hill's career & technical education curriculum is to provide students with broad, transferable skills, which are related to life situations, and occupations and which prepare students to be more responsive to change. The school district provides its students with the following three programs in occupational education:

- (1) Business/Marketing Education
- (2) Technology Education
- (3) Career Tech programs sponsored by Questar III

A student could complete the graduation requirement for a five-credit sequence in occupational education in any of the following ways:

- (1) Technology five-credit sequence
- (2) Interdisciplinary five-credit sequence
- (3) Career Tech Programs offered by Questar III

Five-credit sequences are explained in the following pages describing each program. Sample sequences are presented. Interdisciplinary five-credit sequences combine two different occupational education programs. This sequence is composed of one complete three-credit major sequence and two credits from one of the other programs.

Grade Classification

Students are assigned to Grades 10 through 12 according to the number of credits they have earned. Credits prerequisite to grade classification and enrollment areas follows:

<u>Grade</u>	<u>Credits Earned</u>
10	5 ½
11	11
12	16

Note: A student must pass either English or social studies to be advanced to the next grade. Transfer students will have their programs evaluated in terms of the requirements of their previous school systems and minimum New York State requirements.

Recommended Course Preparation for College

Although college entrance requirements vary according to the college and program selected, current college admission information indicates a trend toward required patterns of high school preparation including:

English	4 years required
Social Studies	4 years required
Mathematics	3 years minimum (through Algebra II) 4 years recommended for science, math, engineering, computer, business administration majors
Science	3-year lab science minimum 4 years recommended for pre-med, nursing and science majors including biology, chemistry, physics
Foreign Language	3 years high school study preferred 4 years high school study for competitive schools
Design and Drawing For Production	Recommended for students planning to major in engineering or technology
Studio in Art/ Drawing and Painting	Recommended for any student interested in pursuing a career in the design or the visual arts

Doubling Courses

Students who fail courses may **not** take two full-year courses concurrently which are sequential in nature. For example, Geometry may **not** be taken until Algebra is successfully completed. This will apply to English, social studies, math, science, foreign language. Students failing courses should consider summer school. Only during the senior year will students be allowed to double up.

THE GUIDANCE PROGRAM

The guidance program provides students with educational and career information beginning with Grade 7 and continuing through Grade 12.

Grade 7- 9

The Grade 7-9 program emphasizes orientation to a new school environment. The counselor will visit classes and Advisory to discuss school procedures, grading policies, graduation requirements and course selections. Students with academic problems will be working with the counselor to develop study skills.

Grade 10

In Grade 10, the emphasis is on career exploration and decision-making skills. Group sessions include career awareness activities, the use of occupational resources and use of the internet and other computerized developmental career exploration programs.

Grade 11

The Grade 11 program focuses on post high school planning. Students acquire skills and knowledge which enable them to (1) make realistic self-appraisals and apply this information to educational and vocational plans; (2) learn the techniques of researching colleges and programs; (3) become familiar with college admissions and application procedures.

Grade 12

The guidance program for the senior year is a busy time: applying for college, scholarships, financial aid, and exploring options in the service or preparing for entry into the job market.

ADVISORY

Jr. Advisory:

Students in grades 7 and 8 will be assigned to a qualified teacher during advisory time. In addition to guided homework completion, students in Jr. Advisory will participate in a variety of learning experiences including but not limited to: study skills, organization, safety procedures, mental health & wellness, restorative circles, current events, community involvement opportunities, social topics, DASA and anti-bullying, guided discussions, and other necessary training. Advisory teachers will communicate with faculty, staff, administration, students, and families as needed throughout the school year with the ultimate goal of facilitating a smooth transition through the Junior High School years with greater independence in "Sr. Advisory" as well as academic, social, emotional, and physical well-being.

Jr./Sr. Advisory:

Students in grade 9 will be placed in a Jr. Advisory the first semester of 9th grade. Based on behavior and academic standing, a team of teachers, staff, and administrators will decide whether or not students will move into Sr. Advisory the second half of freshman year. Some students who do not meet expectations will remain in Jr. Advisory for the second semester of 9th grade. Students' progress in areas such as behavior and academics will be reviewed every five weeks.

Sr. Advisory:

Students in grades 10-12 will be assigned to "Sr. Advisory" which involves independence as students strive to meet academic, social, emotional and physical well-being goals. Students are able to self-budget time in the following areas: study skills, organization, mental health, self-guided discussions, community and extracurricular involvement, social topics, communication, current events, and self-advocacy. The ultimate goal of Sr. Advisory is to create time and space for students to be self-advocates as well as responsible school and community citizens. Throughout the year, Sr. Advisory will include school-organized events as well as student-led events, meetings, and presentations. Events may occur in small or large groups and will vary in topics including but not limited to: academic achievement, safety procedures, mental health & wellness, DASA and Anti-Bullying, social topics, and restorative circles. Students in Sr. Advisory will have leadership opportunities and are expected to follow expectations for both behavior and academic achievement. Individual students may lose the privilege of Sr. Advisory (being placed into a Jr. Advisory) by the administration if the student(s) fail to comply with Sr. Advisory expectations.

ART

All studio courses include portfolio assessment and reflect a discipline-based art education, which is a conceptual approach that derives the content of an art lesson from four fundamental domains:

Art Production
Art History
Art Criticism
Aesthetics

STUDIO IN ART (1 Credit)

The Studio Art class is based on fundamental concepts used for both making art and appreciating the work made by others. As such, it is a class suitable for everyone, from hesitant beginners to seasoned art-makers in grades 9-12! The class provides not only an excellent foundation for all of the other MHHS art classes, but it is a strong general art appreciation and art education for students who are not planning to pursue a career in the Arts. Note: Students that desire future art classes are encouraged to sign up for Studio Art their Freshman year.

STUDIO IN CERAMICS I (1/2 Credit)

Ceramics, one of the oldest forms of art, is designed for the student who is interested in working with clay. This course explores the potential of the medium in terms of both its functional and sculptural/ creative possibilities. This course will introduce as many approaches to the use of clay as possible, given the half-year time frame. Students will learn the vocabulary and the nature of clay as they work through projects that include: texturing, pinching, coil making, and slab building. Students will make pots using molds and found objects, and they will work with the kick and electric potter's wheels as well. A variety of glazes and finishes can be used to complete the work made in class.

STUDIO IN DRAWING AND PAINTING (1 Credit)

Traditionally artists draw from life in preparation for painting with color. Drawing will occur throughout the year from line to value studies with pencil, pen and ink, charcoal, conte crayon, and mixed media. By exploring a sequence of basic pictorial problems, the student will develop an understanding of the following: compositional principles, design elements, spatial concepts and color harmonies. Pictorial subject matter will range from still life, and portraits, to abstract design. Painting and color will be explored through pastels, watercolors and acrylics. This course will demand daily involvement, sketchbook assignments and portfolio assessment.

STUDIO IN ADVANCED DRAWING & PAINTING (1 Credit)

Pre-requisite: Studio in Drawing and Painting

Students continue to study concepts and techniques, which are explored in Studio in Drawing and Painting. Advanced problems will be emphasized.

ADVANCED STUDIO IN ART (1 Credit)

Pre-requisite: Studio in Art

Advanced Studio is largely an exploratory class for experimenting, problem solving, and trying out new ideas and techniques. The formal Elements of Art and the Principles of Design can be arranged to convey an artist's idea or intention. Students will learn to create effective 2 and 3-dimensional compositions by viewing and analyzing various historical artworks. Students will be required to take these compositional concepts and apply them to further their own artistic expression through utilizing a wide variety of materials. Students are expected to participate in class critiques and complete weekly sketchbook assignments.

PHOTOGRAPHY (1/2 Credit)

This course is an introduction to the fundamentals of digital photography including the use of light as a medium for creative work. Historical influences and varying aesthetic approaches to fine art photography will be examined. Exposure, metering, focus, depth of field, lenses, basic lighting, design elements and composition are explored. Students will learn how to utilize Adobe Photoshop and other available photo editing programs. Students are responsible for providing a digital camera, single lens reflex (D-SLR) camera preferred. If possible, a brief introduction to darkroom procedures will be examined.

PHOTOGRAPHY II (1/2 Credit)

Prerequisite: Photography I

This course is designed to help students become more proficient in technical aspects of their camera including exposure, metering, focus, depth of field, lenses, lighting, design elements and composition. Adobe Photoshop and other available photo editing programs will be used for more advanced photo editing. Students will also learn to use their photos in varying transfer processes as a way to combine digital art with traditional art. Several artists and techniques will be referenced. Students are responsible for providing a digital camera (single lens reflex (D-SLR)) camera preferred) an SD card, rechargeable battery and a flash drive.

STUDIO IN SCULPTURE (1/2 Credit)

Sculpture is a three-dimensional art form. This class allows students to discover the relationship between the sculptural object and real space. In this course students will learn to create effective 3-dimensional compositions by viewing and analyzing historical 3-dimensional artworks. Students will explore such sculptural forms as low relief, sculpture- in- the- round, assemblage, and construction. Subject matter will range from realistic interpretations abstract design. Students will have an opportunity to investigate the sculptural qualities of such materials as: plaster, wood, wire, paper, stone, clay, found objects, and other experimental materials. This course will demand daily involvement, sketchbook assignments, and both self and peer evaluation and assessment.

ANIMATION (1/2 Credit)

Pre-requisites: Studio in Art and Photography.

This course is designed to introduce students to a wide range of animation techniques. Students will explore the history and evolution of Animation and practice each technique. Emphasis will be on the processes involved in creating Animations including, but not limited to, storyboarding, creating characters, sound and stage design. Students will become highly proficient in using Adobe products such as Adobe Animate CC, Adobe Character Animator, Adobe Photoshop CS6 and Adobe Bridge. The course will consist of demonstrations, hands-on experimentation and critique.

BUSINESS EDUCATION

FINANCIAL MATHEMATICS (1 CREDIT)

Designed for juniors and seniors

This course is an interdisciplinary business/math course option that will prepare students for both college level business programs and to understand the complex financial world they will encounter. The course covers topics in Payroll - Terminology and Procedures, Compensation Plans, Tax Deductions, Benefits/Cost, Tax Preparation & Health Insurance Costs; Interest - Simple Interest Formula, Compound Interest Formula, Maturity Dates, Time Calculations; and Math Computations used in business manufacturing and production.

For students who have successfully passed a Mathematics Regents examination and upon approval, Financial Mathematics may be used to fulfill one of the three units of Mathematics required for graduation.

INTRODUCTION TO ACCOUNTING (1/2 CREDIT)

Introduction to Accounting is designed to provide students with a strong foundation in accounting principles. Students will learn what business transactions are and how accountants use a double-entry system (debits and credits) to keep track of these transactions. Next students will study the complete accounting cycle of recording transactions, preparing financial statements, and "closing the books" for sole proprietorships. This course prepares students for post-secondary accounting courses.

ADVERTISING (Not offered every year) (1/2 Credit)

Designed for sophomores, juniors, and seniors

This course provides a basic understanding of advertising and the advertising industry. Advertising in radio, television, magazines, and newspapers will be studied. Students will create advertisements using various types of media. An integrated marketing communications approach will also be presented, and various communication efforts will be examined.

BUSINESS LAW I (Not offered every year) (1/2 Credit)

This course introduces students to ethics, criminal law, civil law, the court system, trial procedures, and problems in society, contract law, legal aspects of starting a business, and employment law. Guest speakers will further the understandings of topics offered and bring true reality to the class.

BUSINESS LAW II (Not offered every year) (1/2 Credit)

This course introduces students to consumer law, legal aspects of marriage, divorce, renting a home, buying a home, insurance protection, credit protection laws, checks and negotiable instruments, retirement, health care issues, and wills. Guest speakers will further the understandings of topics offered and bring true reality to the class.

CAREER AND FINANCIAL MANAGEMENT (Not offered every year) (1/2 Credit) *Designed for juniors and seniors*

Career and Financial Management is a course designed to teach financial literacy and employability skills to young adults. Students will gain an understanding of and develop the skills needed to be successful in the world. They will explore a range of financial topics, including budgeting, maintaining a checkbook/bank account, credit and insurance. Students will also learn about emerging workplace trends and be provided with the opportunity to develop employment skills, including resume writing and interviewing.

PRINCIPLES OF MARKETING (Not offered every year) (1/2 Credit)

Designed for sophomores, juniors, and seniors

This course will provide an exciting introduction to marketing using real world examples. The marketing planning process and the market environment will be discussed. Students will learn about consumer behavior and gain an understanding of targeting and positioning. Additionally, the elements of the marketing mix including new product development, promotion, pricing, and distribution will be covered. This course is strongly recommended for any student going on to college for marketing or another business-related field.

CAREER EXPLORATION INTERNSHIP PROGRAM (Half Year-1/2 Credit) (Full year-1 Credit)

The Career Exploration Internship Program (CEIP) is a 1/2-year, 1/2-credit or 1-year, 1-credit non-paid internship open to juniors and seniors. CEIP provides a link between school and possible careers. The program gives students hands-on experience in a variety of careers so that they can become aware of what it is really like to work in those careers. Students will gain an understanding of the importance of a positive work ethic, timeliness and good study habits. In addition, they will have an opportunity to improve their teamwork and human relation skills. Relationships will be developed between the mentor and the student that could result in recommendation for employment, future careers and/or college.

A classroom component is also required. Individual student interests will be accommodated as much as possible. Internships may occur outside the school day. Students will need to provide their own transportation. All interested students must complete an application and be interviewed by the Work Based Learning Coordinator.

CEIP was developed cooperatively between the NYS Departments of Education and Labor and fulfills credit toward graduation.

Examples of internships that CEIP students may explore include, but are not limited to:

Accounting
Architecture
Biology Research
Broadcast Communications
Civil Engineering
Healthcare
Marketing
Veterinary Science

ENGLISH

ENGLISH 9 (1 Credit)

English 9 is a course that builds on prior knowledge and works to strengthen students' skills in reading, writing, speaking, listening, and language arts with an emphasis on close reading, positive discourse, and effective composition. Students will be assessed on demonstrated skill level in these areas. Course reading genres include novels, short stories, plays, poetry, and non-fiction. Writing genres include narrative, analytical, argumentative, creative, and expository. Collaboration, oral presentation, and technological integration are important components of the course.

ENGLISH 10 (1 Credit)

English 10 activities are designed to build on skills introduced and practiced in grade 9, as well as introduce more advanced concepts, reading and writing. All activities align with the New York State ELA Common Core Standards. Close attention is paid to critical analysis of both non-fiction and literary texts. Throughout the course, students will explore novels, plays, short stories, poetry and various primary documents. In addition, they will complete multiple writing assignments including an extended interdisciplinary research project. Interspersed within study units will be studies of relevant vocabulary, literary terms and grammar usage. Student-selected written work will be used to develop an e-portfolio displaying his or her proficiency in Common Core ELA Standards.

ENGLISH 11 (1 Credit)

English 11 builds on skills introduced and practiced in grade 10, and will introduce more advanced concepts. All activities align with the New York State ELA Common Core Standards. Close attention is paid to critical analysis of both non-fiction and literary texts. Throughout the course, students will explore novels, plays, short stories, poetry and various primary documents, including Early American texts. In addition, they will complete multiple writing assignments, including Common Core Regents tasks and a literary analysis. Interspersed within study units will be studies of relevant vocabulary, literary terms, grammar usage, and research skills. All students will take and must pass the Regents Comprehensive exam English at the end of the year.

ENGLISH 12 (1 Credit)

English 12 is a full year, one credit course that concentrates on real-world application of reading, writing, and critical thinking. Students will study fiction, non-fiction, and poetic works as well as film and multimedia texts. An emphasis is placed on readying students for college or career, from working through the college application process to APA style research papers. The curriculum offers much student choice and autonomy, with a focus on helping students become ready for the world beyond Maple Hill High School. Novels and readings covered will adapt and change with the makeup of the class and will depend on issues relevant to the world at large.

ADVANCED PLACEMENT ENGLISH LANGUAGE (1 Credit)

This course focuses on the study of rhetorical analysis, argument, and synthesis writing. Texts include numerous non-fiction classic and contemporary essays from a wide array of disciplines, as well as various visual texts such as advertisements and political cartoons. Readings and writing strategies are at a collegiate level, and the recommendation of students' tenth grade English teacher and/or course instructor is encouraged.

Students who select this class are expected to take the AP Language exam in May, as well as the Common Core Regents exam in June.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION (1 Credit)

This course focuses on the intense study of literary texts at a collegiate level. Considerable attention is paid to varied critical approaches to a wide array of fictional readings. Students will read British and American Literature and poetry from the 1600s to today. Close reading of literary elements is critical to success in this class, as is self-motivation to keep up with substantial outside reading requirements.

Students who select this course are expected to take the AP Literature exam in May.

JOURNALISM (Not offered every year) **(1/2 Credit)**

This course is a one semester introductory elective to journalism. Students will learn the fundamentals of journalism, including event coverage as well as the business and legal aspects of the newspaper. Throughout the course, we will uncover the history of journalism, speculate on the direction that this noble profession will take in the future and discuss the impact of the media on our daily lives. The class will explore journalistic ethics and think critically about bias in reporting. Students will encounter various article formats and work towards developing their voice using various writing styles. In addition, the course will provide students with practical experience by allowing them to write articles about topics of their choice and serve as the editorial board for the Maple Hill High School Newspaper, "The Pawprint."

English 12 Examining Critical Issues Through Contemporary Mediums **(1/2 Credit)**

This course will be a ½ year course, in which students can get English credit. Students will examine the importance of being a responsible citizen, and will examine various cultural and social challenges through a critical lens while adhering to the common core ELA standards. Students will read various texts (fiction & nonfiction) in various mediums (articles, novels, poems, and speeches), and analyze them for their message, purpose, and impact. Students will analyze their duty as a citizen and human being, and the course will foster students' leadership and citizenship while increasing their awareness of various social and cultural issues.

PUBLIC SPEAKING (Not offered every year) **(1/2 Credit)**

Great speakers, like great speeches, don't just happen. They are the result of practice, review and revision. This course is a one semester introductory elective to public speaking. It is a practical course designed to offer the novice speaker a number of opportunities to organize and prepare public speaking assignments including but not limited to: An introductory speech, public oral reading, demonstration, persuasive/argumentative speech, informative speech with effective use of PowerPoint and impromptu speeches. This semester, we will learn about the processes that make both great speakers and great speeches. Students will learn about the role of communication in our lives, delivery styles, and the effectiveness of language, gestures and organization techniques. In addition to public speaking, students will learn about the processes of communication, effective listening, interviewing and how to effectively participate in groups. Public speaking is a vital skill that can be used in numerous environments and situations and one that you will use for the rest of your life. If you struggle when giving a speech, don't worry- you are among the vast majority of the population and are in the right place! If public speaking comes naturally to you, with the right attitude you can effectively hone your skill.

INFORMATION & DIGITAL LITERACY **(1/4 Credit)**

Information & Digital Literacy is a quarter length course offered to freshmen. The purpose of this class is for students to develop the knowledge and research skills in a variety of information and communication technologies in order to find, evaluate, create, and communicate that information in multiple formats.

SERVICE LEARNING (Not offered every year) **(1/2 Credit)**

This is an independent study, half- year course that allows students to create and implement a public service project. Course requirements include selection of an area of interest, weekly meetings with a mentor, creation and up-dating of both a time log and reflective journal, and completion and power-point presentation of the student-chosen project.

CREATIVE WRITING – FICTION (ENGL 151) **(1/2 Credit) (3 Sage College English Credits available)**

This course offers students a basic forum to explore the processes and principles by which short fiction is created. While emphasis is placed on the development of freedom and precision of artistic expression in and through the creation of original student manuscripts, numerous traditional and contemporary fiction texts will be discussed and analyzed. There is also a research paper and final creative project for this class.

CULTURAL INQUIRY THROUGH FILM AND LITERATURE (1/2 Credit)

Film and literature are universal means of expressing, exploring, and experiencing culture as well as the diversity of human life. The intention of this course is to provide a type of virtual-travel and interpersonal experiences through a series of films and film clips, short stories, poems, and novels, by which students will be able to delve into a variety of cultures and diverse human experiences they may otherwise be unfamiliar with.

Through film, students will be exposed to a different form of media, viewing films and clips with a critical eye. Students will build on their knowledge of literary elements and develop their knowledge of elements of film. With these tools, students will continue to develop their analysis and critical thinking skills. Students will work on close “reading” of stories, fiction and non-fiction. Students may be asked to attend 2-3 full-film viewings after regular school hours and read 1-2 full length texts.

SCIENTIFIC COMMUNICATIONS (Not offered every year) (1/2 Credit)

How do we communicate about science? How does one make their scientific discoveries understood to a population? And as part of that population, how do we decipher what we hear about new advancements in medicine, technology, and environmental sciences? In order to address the global promises and challenges we face, we must be able to investigate the relationships between science and society. This course is a one semester introductory elective to scientific communication. It is a practical course designed to offer basics in writing, reading, presenting and critically analyzing scientific information. This semester, we will learn about the differences in writing for the sciences versus the humanities and hone our close reading skills with journal articles and literature reviews. Student interest will guide the scientific topics explored, which could include, but are not limited to: the technological revolution, climate science and energy, biomedicine and nuclear risk. We will also practice the skills needed when giving oral presentations of scientific information. Finally, we will critically analyze the way scientific information is presented in the media. This course is not only designed for students planning on a science major in college, but will expose students to different ways of reading and thinking critically about the scientific information that impacts your daily life from healthcare to cell phones. This course is recommended for upperclassman and accelerated sophomores in science.

FOREIGN LANGUAGE

SPANISH I (1 Credit)

At the first level, Spanish provides an introduction to the language and culture of the Spanish-speaking world. Much of the first year is devoted to developing students' comprehension and speaking abilities in every day situations. The basic grammatical structures are presented to the student providing for ample opportunity to write, speak, listen and read the target language.

SPANISH II (1 Credit)

At the second level, the student is presented the more complex structures of basic Spanish. The cultural themes of the first level are also expanded. By the end of the second year, the student will have acquired a command of the key vocabulary and structures necessary for personal communication.

At the second level much of the class period is conducted in Spanish and the students are expected to understand the lessons as well as actively participate in the target language.

SPANISH III (1 Credit)

In the third year, the four aspects of language are tied together – listening, speaking, reading, and writing. The student will be provided a review of all the basic structures through composition and conversation. At the end of the third year, the student will take a comprehensive language exam.

SPANISH IV (1 Credit) (3 HVCC College Credits available)

This class offers a review and extension of grammar and concentrates on improving the student's vocabulary, conversational fluency and reading skills through the discussion of selected readings in Spanish. Classroom discussions will be conducted primarily in Spanish.

Spanish IV is being offered for HVCC credit. Students would need to pay a reduced tuition fee and submit a residency form to apply for credit.

MATHEMATICS

ALGEBRA (1 Credit)

Algebra is the first year of the high school mathematics program designed to meet the Common Core State Standards for Mathematics. This one year course will cover topics such as linear and quadratic equations, polynomial operations, systems of equations, factoring, functions, sequences, and statistics. In addition, word problems and problem solving will be prevalent throughout the course. The Texas Instruments TI-*nspire* CX graphing calculator is required. Students will take the New York State Regents examination in Algebra at the end of the course.

ALGEBRA IA (1 Credit)

Algebra IA is the first year of a two year program in Algebra designed to meet the Common Core State Standards for Mathematics. Topics covered in this year include real numbers, polynomials, linear equations and inequalities, word problems, systems of equations, graphing linear functions, statistics, and factoring. The Texas Instruments TI-*nspire* CX graphing calculator is required. There will be a local examination at the end of the first year. Students will take the New York State Regents examination after both Algebra IA and Algebra IB are complete.

ALGEBRA IB (1 Credit) *Prerequisite: Algebra IA*

Algebra IB is the second year of a two year program in Algebra designed to meet the Common Core State Standards for Mathematics. Topics covered in this year include factoring, quadratic equations, functions, sequences, and statistics. The Texas Instruments TI-*nspire* CX graphing calculator is required. Students will take the New York State Regents examination in Algebra at the end of the course. This exam will cover material from both Algebra IA and Algebra IB.

GEOMETRY (1 Credit) *Pre-requisite: Algebra*

Geometry is the second year of the high school three-year mathematics program designed to meet the New York State Math standards which has been updated to meet the Common Core standards. The geometry course will cover traditional geometry topics including two-dimensional figures, three-dimensional objects, triangle congruence, similarity, right triangle trigonometry, transformations, circle geometry and proofs. Various technologies will be incorporated into the course to aid in the learning process. Students will take the New York State Regents examination in Geometry in June. The Texas Instrument NSPIRE calculator is required for the exam.

CONTEMPORARY MATHEMATICS (1 Credit) (Not offered every year)

This course presents methods of problem solving, centering on problems and questions which arise naturally in everyday life. It may include aspects of algebra and geometry, the mathematics of finance, probability and statistics, exponential growth, and other topics chosen from traditional and contemporary mathematics. Students may take the Excelsior College exam for college credit. The examination measures knowledge and understanding of material and skills typically taught in an undergraduate course that serves to fulfill a math or quantitative requirement for students who will not need to go on to take more advanced mathematics courses.

ALGEBRA II (Regents) (1 Credit)

Pre-requisite: Algebra and Geometry

This course is the next step for students who have been successful in their first two years of high school mathematics and is designed around the Common Core State Standards. Topics include the study of functions, complex, rational and irrational numbers, exponential and logarithmic functions, trigonometric application, analytic trigonometry, probability and statistics and the conic sections. Topics are now explored in real world context and the graphing calculator plays a vital role in this level of mathematics. **The Texas Instrument NSPIRE calculator is required for the course.** Students will take the NYS Regents Algebra II Exam in June.

FINANCIAL MATHEMATICS (1 Credit) *This course is designed for juniors and seniors.*

This course is an interdisciplinary business/math course option that will prepare students for both college level business programs and to understand the complex financial world they will encounter. The course covers topics in **Payroll** - Terminology and Procedures, Compensation Plans, Tax Deductions, Benefits/Cost, Tax Preparation & Health Insurance Costs; **Interest** - Simple Interest Formula, Compound Interest Formula, Maturity Dates, Time Calculations; and math computations used in business manufacturing and production.

For students who have successfully passed a Mathematics Regents examination and upon approval, Financial Mathematics may be used to fulfill one of the three units of Mathematics required for graduation.

PRE-CALCULUS (1 Credit) (4 HVCC College Credits available)

Pre-requisite: Algebra II (Regents) and passing the Algebra II Regents Exam.

Pre-Calculus is a rigorous and challenging math course. It is intended for students who have been successful in their previous high school math courses and are preparing for college-level calculus. The course itself is an algebra-based course, where previous math knowledge is put to use and constantly expanded upon, as well as viewed in new situations. All units of study include both the algebraic and geometric representation of functions, as they now go hand-in-hand. The student's skill level and depth of understanding of mathematics is greatly increased in Pre-Calculus. The graphing calculator is used by all students throughout the course as a tool to assist in interpreting, understanding and analyzing the nature of the functions studied in the course. Students will also begin to write programs for their calculators, applying their knowledge of mathematics and the use of formulas. Students may use the TI-85, TI-86, TI-89, or TI-83+ or TI-84 graphing calculator. Pre-Calculus is now offered through HVCC for college credit. Students would need to pay a reduced tuition fee and submit a residency form to apply for credit.

AP CALCULUS (1 Credit) (8 HVCC College Credits available) *Pre-requisite: Pre-Calculus*

This is a full-year course open to students who have successfully completed Pre-Calculus. The course will include all topics found in most college Calculus I courses. Students are encouraged to take the Advanced Placement test in May, prior to the conclusion of the course. A graphing calculator is required for the course.

College Admissions offices expect that students who enroll in AP courses will take the AP exam at the end of the course.

TOPICS IN MATH (1/2 Credit)

This course exposes students to the wide variety of mathematics that exists beyond what is traditionally taught in a mathematics class. Specific topics discussed each semester will be based on student interest and the abilities of the students in the class and will vary each semester. Such topics may include logic puzzles, statistics, solving a Rubik's Cube, etc. This course is oriented towards students interested in math who enjoy the satisfaction of solving a problem. Course activities will focus on problem solving, reasoning, logical thinking, communication, connections, and representation.

ALGEBRA/GEOMETRY (Non-Regents) (1 Credit) **Prerequisite: Algebra**

Algebra/Geometry is a combined course teaching 2nd year algebra topics with the addition of first year geometry topics. Some of the Algebra topics covered will include: Solving linear equations, solving multistep equations, graphing linear equations, systems of equation, solving quadratic equations, and solving equations with rational numbers. Some of the geometry topics include: properties of two and three dimensional figures, similarity, right triangle geometry, transformations and circle geometry.

MUSIC

MUSIC IN OUR LIVES (1/2 Credit) (Not offered every year)

In this course, a student should gain an understanding of the language of music. The course is designed to meet part of the Regents Art/Music requirement. This course deals with basic communications skills in music through composition and elementary music theory and harmony, as well as introducing the student to various stylistic elements of music. Medieval, Baroque, Rococo, Classical, Romantic, Twentieth Century Music including Impressionism, 12 tone, Jazz, Electronic and Popular styles will be addressed and examined. Basic music writing and compositional skills will be fostered here, in order to give the student an experience of personal expression in music.

AMERICAN POP MUSIC I and II (1/2 Credit each) (Not offered every year)

American Pop Music is a course that is designed to give students the opportunity to develop an understanding of this truly American art form from a balanced perspective of cultural, sociological and historical context. We will examine the major music genres in popular music history – Tin Pan Alley, musical theater, ragtime, blues, jazz, country, rock and hip-hop. We will work to develop critical listening skills to hear and identify the basic elements of the music and understand how they help define characteristics of individual styles. Students are not required to take American Pop Music I in order to take American Pop Music II.

MUSIC THEORY I (1/2 Credit) (Not offered every year)

Pre-requisite: Participation in band, chorus, Music In Our Lives or other music instruction to be approved by teacher.

Music Theory takes the basic building blocks introduced during Music In Our Lives and emphasizes compositional techniques through more advanced music theory and harmony. Chord construction, analysis, sight singing, ear training, harmonization of melodies, listening, and composition are part of this course.

MUSIC THEORY II (1/2 Credit) (Not offered every year)

Pre-requisite: Student must have completed and passed Music Theory I.

Music Theory II is a continuation of Theory I. This course is designed to further enhance the students understanding of music. Emphasis will be placed on use of seventh chords, modulation and form. There will be many opportunities for analysis, adaptation and compositions in different styles.

BAND (1 Credit)

The senior high band is a concert band consisting of all wind and percussion players who would like to participate and have had previous playing experience at the middle school level. Students are expected to display performance skills, which are of a high quality (NYSSMA IV-VI). These skills will be developed not only during morning rehearsals, but also during small group lessons and at home practice.

CHORUS (1 Credit)

The High School Chorus is open to all students. Students can experience various musical styles (from Renaissance to Popular vocal music). Emphasis is placed on vocal technique, vocal production, basic musicianship skills, and choral performance. Opportunities for a select vocal ensemble are dependent at the discretion of the director.

MUSIC PERFORMANCE - (Band & Chorus) (1 Credit)

Music Performance allows students to participate in both the band and the chorus. Students join both musical groups, and they rehearse with each group.

PHYSICAL EDUCATION/HEALTH/PERSONAL WELLNESS

PHYSICAL EDUCATION (1/2 Credit Per Year)

All students are required to take Physical Education and to successfully complete minimum requirements as set by the State Education Department and our local school district. Students with special needs or restrictions will meet with their physical education teacher to develop a program adapted to their specific situation.

The 9-12 Physical Education program is intended to be a four year process of learning skills, rules, strategies and social behaviors that will promote an active lifestyle. Students will have an opportunity to experience a broad range of activities that includes traditional and non-traditional team sports as well as individual sports and non- competitive fitness activities. Basic skills and knowledge fundamental to enjoyment of the activity will be presented in the first year(s) of high school. With additional experience and maturity, students will become competent in several activities and proficient in a few that have become their preferences over time.

Enjoyment of movement, in general, is a goal in promoting active lifestyles as these students begin to take more adult responsibility for their own health and well-being. NYS Health Related fitness testing is an opportunity for personal assessment. Students will use the information for setting goals and design of personal fitness plans. Journal entries will help the student in their analysis and recognition of the importance of regular physical activity.

All classes are co-ed and have the following goals in common:

- (a) to develop higher levels of competency and skill
- (b) to encourage positive attitudes toward movement
- (c) to develop and maintain optimum levels of physical fitness
- (d) to encourage socially acceptable patterns of behavior

HEALTH EDUCATION (1/2 Credit)

Health education is a one-semester course, which fulfills New York State and local school district graduation requirements. The course provides students with accurate health information to help guide them in making positive choices about their health and wellness, emphasizing responsible behaviors and reducing the risk of illness or injury.

Topics in Health Education include wellness, nutrition, substance use and abuse, chronic and infectious disease control, mental health, fostering positive self-esteem, decision making skills, human sexuality, family living skills, and death and dying. Students also benefit from visits by local health professionals willing to share pertinent information in their area of expertise.

FITNESS FOR LIFE (1/2 Credit) (not offered every year) *Priority: Junior or Senior*

Fitness for Life assists students in developing the necessary understanding and skills to acquire and maintain a physically active and wellness-oriented lifestyle. Each student will have the opportunity to enhance their fitness level through the five components of health-related fitness. The class will be interactive and incorporates both individualized and group instruction on a range of aerobic and non-aerobic activities such as stretching, toning, endurance training, and the exploration of strength training on major muscle groups. Testing of student physical fitness levels will be regularly recorded to facilitate goal-setting. Additional health-related topics will be discussed throughout the course to emphasize the impact of health-literate life choices in the areas of overall health and wellness, lifetime physical fitness, and attaining personal goals.

Course Objectives:

Upon successfully completing this course, you will be able to:

1. Explain the physiological benefits of movement, physical activity, and wellness
2. Define principles involved in increasing and maintaining physical fitness
3. Evaluate and apply fitness and wellness concepts to individual lifestyle
4. Participate in wellness activities and design a personal fitness training plan

SPORTS NUTRITION AND PERSONAL HEALTH (1/2 Credit) (not offered every year)

Using current research in nutrition and performance, this course examines the nutritional needs of the athlete, including special requirements for carbohydrates, lipids, protein, fluids, vitamins, and minerals. Topics include ergogenic aids; energy and nutrient needs prior to, during, and after an athletic event; and methods of weight gain and loss. In addition, accurate information will be provided to increase knowledge about health related resources available to the individual. This course emphasizes wellness and health promotion and responsible behaviors.

STRESS MANAGEMENT (1/2 Credit) (not offered every year)

This course will focus on the nature of stress, its impact on health and well-being, and techniques for managing stress effectively. Students will work to evaluate the many factors which can influence their health and ability to make positive decisions. Self-assessments, methods of relaxation and stress reduction will be explored from a personal and group perspective.

SCIENCE

REGENTS EARTH SCIENCE (1 Credit)

Ninth grade students will be enrolled in Regents Earth Science, a laboratory based course covering the broad topics of geology, astronomy, meteorology and oceanography. Students will participate in laboratory investigations where they will be expected to demonstrate mathematical skills, problem-solving techniques, and the ability to collect and organize data. The New York State lab requirement must be met by submission of the necessary lab reports. All students will take and must pass the New York State Regents examination in Earth Science.

REGENTS BIOLOGY (LIVING ENVIRONMENT) (1 Credit)

The Living Environment is the science dealing with the study of living things. This course provides the student with a survey of living organisms of the plant, animal, and protist kingdoms as well as a detailed view of their means of carrying on life. The Regents-level course is designed to prepare students for successful completion of the NYS Regents examination in the Living Environment. Heavy emphasis is placed upon biochemistry, plant and animal physiology, reproduction and development, genetics, modern evolutionary theory, and ecology, as well as on man in relation to other living things. The ecology unit will include discussion of conservation and of natural resources in New York State. Students are involved in weekly laboratory studies. The New York State lab requirement must be met by submission of the necessary lab reports.

REGENTS CHEMISTRY (1 Credit)

Regents Chemistry is a course which presents a modern approach to chemistry. Regents Chemistry is a rigorous, fast-paced course, which requires students to draw on their skills in the areas of science, math, and writing. Each student is expected to learn and use abstract concepts such as atomic structure, matter and energy, chemical bonding, kinetics and equilibrium, redox reactions, acid-base theory, and organic chemistry. Students will use mathematical concepts like graphing, metrics, direct and inverse relationships, and ratio and proportion.

Concurrent enrollment in Algebra II or Pre-calculus is recommended. The New York State lab requirement must be met by submission of the necessary lab reports. The final examination is the New York State Regents Examination in Chemistry.

HONORS CHEMISTRY (1 Credit)

Honors Chemistry is a rigorous, fast-paced course, which requires students to draw on their skills in the areas of science, math, and writing. Each student is expected to learn and use abstract concepts such as atomic structure, matter and energy, chemical bonding, kinetics and equilibrium, redox reactions, acid-base theory, and organic chemistry. Students will use mathematical concepts like graphing, metrics, direct and inverse relationships, and ratio and proportion. This course will go into greater depth and will move at a faster pace than the Regents curriculum but students will still earn Regents credit by taking the Regents Exam as their final exam.

Concurrent enrollment in Algebra II or Pre-calculus is recommended. The New York State lab requirement must be met by submission of the necessary lab reports.

REGENTS PHYSICS (1 Credit) *Pre-requisite: Algebra II. Exceptions can be made at the discretion of the instructor.*

Regents Physics is the study of energy and how energy affects matter – what it does – how it does it. High school physics is divided into units, each dealing with a specific form of energy. These units are built around the study of mechanics, sound, light, heat, electricity, and nuclear energy. Physics is a very interesting and satisfying course of study; yet, it is also one of the more difficult subjects offered in high school.

Physics is primarily designed for those students who intend to continue their education beyond the secondary level. Most technical colleges today required physics as a prerequisite. It is a **must** subject for those intending to pursue science or engineering at the college level and is a recommended course of study for pre-med, nursing, and physical education.

Students should anticipate a minimum of thirty to forty-five minutes of homework each day. The laboratory work in physics has become increasingly demanding in the accuracy of the work performed. If students are not willing to spend extra time improving technical writing abilities, they should **not** enroll in physics. The New York State lab requirement must be met by submission of the necessary lab reports.

AP BIOLOGY (1 Credit)

The goal of AP Biology is to provide students with the scientific principles, concepts, and methodologies required to understand the structure, function, evolution and interaction of living organisms. The students will study topics in evolution, phylogeny & systematics, animal anatomy & physiology, genetics, reproduction & development, biochemistry, cell biology and ecology. Students are prepared for the Advanced Placement exam to receive college credit. ***College Admissions offices expect that students who enroll in AP courses will take the AP exam at the end of the course.***

AP ENVIRONMENTAL SCIENCE (1 Credit)

The goal of AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The students will identify and analyze environmental problems both natural and human-made evaluate the relative risks associated with these problems and to examine alternative solutions for resolving and/or preventing them. Students are prepared for the Advanced Placement exam to receive college credit. ***College Admissions offices expect that students who enroll in AP courses will take the AP exam at the end of the course.***

AP PHYSICS 1 (1 Credit)

AP Physics 1 is a year-long, algebra-based, survey course covering important topics of classical physics. AP Physics 1 is the equivalent of a typical first-semester college introductory physics course. Topics will include: Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Students are required to develop both a mathematical and conceptual understanding of the subject. The course is spread out over a year to provide students with sufficient time to build unparalleled, conceptual understanding by the way of a student-centric, inquiry-based, learning experience. Students should expect that at least 25% of the instructional time will be hands-on, laboratory work as required by the College Board. ***College Admissions offices expect that students who enroll in AP courses will take the AP exam at the end of the course. Students are expected to take the AP Exam in May and Regents Exam in June.***

LABORATORY SCIENCE 1 (1/4 Credit)

This is a required freshmen level course designed to introduce students to fundamental laboratory skills. Emphasized skills include metrology, calibration, chemical safety, and standard operating procedures (SOPs). In addition, students will learn to use lab equipment that is used throughout the high school lab sciences.

LABORATORY SCIENCE 2 (1/2 Credit)

This half-year elective is the second class in our new lab science program. Students will learn additional lab techniques, learn to keep lab notebooks and continue to develop their lab skills. This class is only available to students who have successfully completed Laboratory Science 1.

ENERGY (Not offered every year) (1 Credit)

This course provides an overview of basic energy mechanics and examines many of the different types of energy that are available for real world applications, both traditional and alternative. Among the types of energy to be investigated are solar, wind, hydrogen, geothermal, nuclear, and petroleum. Energy types are surveyed using hands-on laboratory experiments, the results of which can be compared to find the most efficient form. With skyrocketing energy costs and depletion of natural resources, it is essential that anyone entering into adulthood be better prepared to go into a world that is just now starting to realize the implications of mistreating the environment. Citizens will be required to consider energy usage the environment as workers, consumers, motorists, and homeowners. Students enrolling in this course should expect a moderate amount of calculations, writing, and organization of information. Basic concepts from Earth Science, Biology, Chemistry, and Physics are integrated into the course. Prerequisites include Algebra, Geometry, and Earth Science or permission of instructor.

ADVANCED BIOLOGY (Not offered every year) (1 Credit)

This course is designed to explore topics in biology that have been expanded from the Regents Biology curriculum. The topics selected will include molecular biology and heredity, evolution, forensics, animal behavior, and ecology. This course will have a laboratory component with an emphasis on college level laboratory experiments. This is a junior or senior level course for students who have successfully completed Regents Earth Science and Biology.

ANATOMY & PHYSIOLOGY (1 Credit) (College credit opportunity through Excelsior College)

Pre-requisite: Living Environment (Biology)

This course is offered with three primary goals. First is to provide students with in-depth information about human anatomy and physiology. Second is to provide a better transition from The Living Environment to the challenges of AP Biology. Third is to better prepare our students who choose to pursue careers in the medical field, including nursing. This is a full year class and students enrolling should expect academic rigor which requires consistent commitment and effort. Enrolled students will be expected to complete a summer assignment that will be graded as a test score and due the first day of class. Students taking this class will have the opportunity to get college credit for the course, by way of examination, through Excelsior College.

COMPUTER SCIENCE PRINCIPLES (Distance Learning Course) (1 Credit)

Almost every aspect of daily life is supported by or enabled through computer science. In this course, students will learn the underlying principles of computation. Through hands-on laboratory and project-based experience, students will learn about computational areas including abstraction, algorithms, cyber security, and programming. Student work will address real-world problems and lead to the creation of relevant solutions. Students will explore computer science's influence on the arts, sciences, and business, as well as social economic change. An emphasis is placed on developing problem-solving, computational-thinking and algorithmic-thinking skills. Students will complete a capstone project and a written exam as their final assessment.

EXPLORING COMPUTER SCIENCE (Distance Learning Course) (1 Credit)

This course is designed as an introduction to a range of topics in computer science. Through a series of engaging, hands-on projects, students will begin their study of computing fundamentals, web design, Android app programming, rapid prototyping, and robotics. An emphasis will be placed on developing problem-solving and computational-thinking skills. Students will complete a final exam.

ENVIRONMENTAL SCIENCE (Not offered every year) (1/2 Credit)

Pre-requisites: Earth Science and Biology

This course offers students an overview of topics and disciplines needed to understand the environmental issues and challenges of today's world. The course will integrate aspects of biology, earth science, and environmental policy. Specific topics will include preserving biodiversity, human population growth, energy, pollution, and sustainability.

CODING (1/2 Credit)

This class is an introduction to computer science and more specifically computer programming. Students will learn to write computer code in different languages such as JavaScript, HTML, CSS, and Python. The course will give students a background on how to write computer programs and problem solve with computers. Students will be able to specify computations and use major computer programming constructs such as data storage, conditionals, functions, procedures, recursion and looping. By the end of the course students should be able to create small websites and create small programs using a variety of languages.

TOPICS IN BIOLOGY – The Gene (Distance Learning Course) (1/2 Credit)

This course is an inquiry into the significance of genes and DNA in our everyday life. The personal, biological, political, and sociological implications of our ever-expanding understanding of genetics and heredity are discussed. The course also covers basic biochemical and cellular principles, human organs and their integration into various body systems, DNA, biotechnology, human development, human genetics, and major human diseases.

This course has the potential for students to receive college credit from Hudson Valley Community College, based on grade and tuition costs. This course is comparable to Hudson Valley Community College course BIOL 105. Tuition is \$150. HVCC standards and curriculum form the foundation for this lab based course. Students will be held to the academic expectations of a higher level education institution.

INTRODUCTION TO VIDEO GAME DEVELOPMENT (1/2 Credit) Grades 10-12

"Introduction to Video Game Development" is a Spring 2021 elective open to students in grades 10-12. In this class, students will learn about the basics of video game design and development, including game design theory, story and game creation, and the technical aspects of creating video games. Students will be given the tools and opportunities to not only learn about video game design and development but about the video game industry as well. There will be a focus on key aspects of video game design, writing and implementing code and elements of art and production, as students use basic features of a video game design editor to create an initial game. There will be a strong focus on project management for technical projects such as video game creation. This course will require accurate and thorough documentation, including game design documents and a game developer's journal, as well as clear and consistent communication with classmates.

STEAM DIGITAL ANIMATION (1/2 Credit)

Students will use digital animation and digital photography to create products that illustrate their understanding of Math, Science, and Engineering related concepts. Students will be introduced to digital animation programs including Adobe Animate CC and photo editing software such as Photoshop.

THE HUMAN BRAIN (Distance Learning Course) (1/2 Credit)

Pre-requisite: Living Environment (Biology)

Students will learn the fundamentals of brain science. Brain structure and function will be stresses. Visualization techniques, biochemistry, and neuroplasticity will be covered. Following the fundamentals of brain science, students will choose 10 topics to investigate deeper. The "choice" topics include sleep, neurodegeneration, neuroscience of art and music, language, love, emotion, happiness, among others. The laboratory component will support the "lecture" component. The laboratory activities investigate synapse function, neuroanatomy, action potential, brain waves, optics, sensory systems, neuron impulse, and oxygen depletion. Though at times the course gets fairly specific and involved, the foundation of every lecture and laboratory is how the brain learns.

ASTROBIOLOGY (Not offered every year) (1/2 Credit)

Pre-requisites: Earth Science and Biology

How does life begin and evolve? Is there life beyond Earth and, if so, how can we detect it? What is the future of life on Earth and in the universe? Astrobiology is the study of the origin, evolution, distribution, and future of life in the universe. This multidisciplinary field encompasses the search for habitable environments in our Solar System and habitable planets outside our Solar System. Astrobiology also includes the search for evidence of pre-biotic chemistry and life on Mars and other bodies in our Solar System. Students will investigate origins and early evolution of life on Earth and study the potential for life to adapt to challenges on Earth and in space.

INTRO TO BIOTECHNOLOGY (Not offered every year) (1/2 Credit)

This Biotechnology course includes career exploration, as well as the history and applications of DNA/RNA technology, molecular biology, bioethics, and laboratory safe practices. This course is laboratory based class with exercises and demonstrations that illustrate the basic techniques of biotechnology that are routinely performed in research, government, and industrial biotechnology laboratories. Specific topics in genomics and bioinformatics will be included

SOCIAL STUDIES

GLOBAL HISTORY AND GEOGRAPHY 9 (1 Credit)

Global Studies 9 is the first year of a two-year global history program mandated under the Regents Action Plan. The course is designed to give students an understanding of the many cultures of our interdependent world from a historical perspective. Global History and Geography 9 will cover the time period from 4000 BC to 1700 AD. Units of study include early civilization from Egypt to China; empires of the ancient world – India, China, Greece, Rome and the Americas; regional civilizations in Africa and the Muslim world; the rise of Europe into the Renaissance and Reformation.

Students in Global History and Geography 9 will develop a variety of intellectual skills to demonstrate their understanding of the major ideas, eras, themes and turning points in global history to examine history from a variety of perspectives. Map skills are highlighted. Project work reinforces skill in gathering and presenting information. Guest speakers and class activities make global history fun and interesting.

ENRICHED GLOBAL HISTORY AND GEORGRAPHY 9 (1 Credit)

Enriched Global 9 is a survey course of history from ancient to early modern times – covering world events from 3000 BC to the mid-1700s. Students learn about early civilizations such as Egypt, Mesopotamia, India and China; ancient civilizations, including Greece, Rome and Mesoamerica; kingdoms of Africa; the Muslim World; the Byzantine Empire and Russia and European history from the Middle Ages to the Renaissance and the Age of Absolutism. The course is part of a two-year Global Studies class that leads to the Regents examination in 10th Grade. Students can choose to take AP World History in their sophomore year and then an AP American History course in their junior year. Enriched Global Studies is not a pre-requisite to the AP course, but is recommended. The regular Global 9 textbook is supplemented with a variety of primary source readings from historical documents, magazines like National Geographic and works of literature such as Shakespeare's *Julius Caesar* and excerpts from Homer's *The Odyssey* and Chaucer's *Canterbury Tales*. Although this is not an AP course, students will be exposed to AP level essays, DBQs and test questions to enhance their critical thinking skills.

The enriched class is for students with strong critical thinking, reading and writing skills, who have a special interest in history. It is intended for students who are self-motivated and complete assignments thoroughly on a regular basis. Students are expected to participate in class and interact with classmates in group discussions and on projects. **There is a summer reading and essay writing assignment for this course.** It is expected that students will spend between 5-10 hours on this assignment.

GLOBAL HISTORY AND GEOGRAPHY 10 (1 Credit)

Global History and Geography 10 is the second year of the two-year global history program mandated by the New York State Regents. The course is designed to give students an understanding of the many cultures of our interdependent world from a historical perspective. Global History and Geography 10 will cover the time period from 1700 AD through the present. Sample units of study include the French Revolution, the Russian Revolution, World War I, the Holocaust, World War II, the creation of Israel and the Vietnam War.

Students in Global History and Geography 10 will develop a variety of intellectual skills to demonstrate their understanding of the major ideas, eras, themes and turning points in global history to examine history from a variety of perspectives. Research skills, information-gathering skills, analysis and evaluation skills are stressed. Students will participate in a variety of interdisciplinary lessons, and activities. All students are required to take and pass the Comprehensive Regents exam in Global History and Geography, covering content from the second year of the Global History and Geography course content.

AP WORLD HISTORY (1 Credit)

AP World History is the enriched class for 10th Grade Global Studies. This class is a comprehensive study of the world's history and geography from the mid-1700s through the present. The course covers the Enlightenment, world revolutions, the growth of nationalism and imperialism, the Industrial Revolution, both world wars and contemporary history since WWII. Students may take this class in place of Global Studies 10. At the end of the year, students will take the AP exam as well as the NYS comprehensive Regents examination in Global history and Geography. Both exams include content from both ninth and tenth grade. The AP course focuses on teaching students to think as historians in studying major trends in global history, including global trading patterns, the rise and fall of empires and worldwide philosophies and religions. Students are expected to have strong critical thinking skills and be strong readers and writers to enroll in the class. The course is designed to prepare students to take later college level courses in 11th and 12th Grade.

UNITED STATES HISTORY & GOVERNMENT (1 Credit)

Successful mastery of skills in Global History and Geography 9 and 10 are prerequisites for advancement to US History & Government. The goal of eleventh grade history (US History & Government) is to assure each student has a substantial knowledge of the American historical tradition. Students acquire a solid knowledge of government and how it operates, as well as the circumstances surrounding its development. Included in the program are the following: the major historical events and people contributing to our cultural heritage; the Declaration of Independence and the Constitution; technological developments and their impact; immigration and internal migration, and the contributions of various racial and ethnic groups; the role of the United States in world affairs; and the formation of public policy historically and in contemporary society. All students are required to take and must pass the Comprehensive Regents exam in US History & Government.

AP US HISTORY & GOVERNMENT (1 Credit)

This course will be an advanced survey course of United States History. The course will be presented in chronological order for the most part. Heavy emphasis will be placed on writing and outside reading in this course. Diverse methods such as group work, lectures, oral and written reports, videotaping, and in-class discussions and assignments will be used to convey the basic principles in the American democratic society.

Students are required to take the Advanced Placement exam in May and are required to take the Regents exam in June. Selection for participation in this course is open. Students, however, will have a summer reading requirement of a pre-selected book and several chapters from the text. Failure to complete the summer reading and the accompanying questions pertaining to these readings may result in removal from the course. ***College Admissions offices expect that students who enroll in AP courses will take the AP exam at the end of the course.***

ECONOMICS (1/2 Credit)

ECONOMICS is a survey study of basic economic concepts such as scarcity, supply and demand, productivity, opportunity cost, specialization productive resources, inter-dependence, growth and economic systems. Students will examine the economic system of the United States and its operation, the roles of the various components of the American economic system, as consumer, worker, investor and voting citizen. How economic decisions are made and how they impact on both society and the individual's life is studied. Special attention is given to the reality of economic inter-independence in the world today. This course is designed to provide students with economic knowledge and skills that will enable them to function as informed and economically literate citizens in our society and in the world. Participation in the Times Union Stock Market Game is required.

ECONOMICS THROUGH SPORTS (1/2 Credit)

Economics through Sports will apply the principles of economics to evaluate and understand the business of sports. The focus will be on key topics ranging from the economic history of the Super Bowl to the evaluation of player salary vs. performance. The course will answer questions such as: Is football America's game? How does a sports team use its salary cap? Are females treated equally in sports? Were minority athletes underpaid? Should the public fund the building of a new stadium? Why does it cost a family of four \$629 to attend a NY Giants Game? Is free agency good for sports? Would you invest in a local sports team? Through this course you will learn how economic factors affect the behavior of players, owners, managers and spectators. This course satisfies the Social Studies 12 Economics requirement.

PARTICIPATION IN GOVERNMENT (1/2 Credit)

Participation in Government prepares our graduating seniors for full and successful participation in our American political system. Students learn their rights and responsibilities as citizens of the United States by gaining the knowledge, skills and attitudes needed to function as good citizens. This course includes intensive study of the U.S. Constitution, including the Bill of Rights, the Federal Government (Congress, the Presidency and the judicial branch), the government of New York State, Rensselaer County, Schodack Township and local divisions. We look into public opinion, voting, political parties' civil rights, criminal justice, and even make some comparisons of our systems with those of other countries.

The emphasis is on **PARTICIPATION** in government, not just memorization of political theory. Student projects focus on agencies, issues or people, which touch our lives here in Schodack, whether originating on the federal, state or local government level. Guest speakers will be brought in periodically to emphasize key concepts, programs, and opportunities to participate.

AP GOVERNMENT WITH ECONOMICS (1 Credit)

Advanced Economics and Participation in Government is designed to mirror a college introductory level political science course. Materials, evaluations, and presentation techniques will also resemble college course work. This course is structured to provide students with the skills and materials necessary to critically analyze our nation's political structure, both past and present.

It is imperative in any Advanced Placement course to foster the skills necessary for students to become independent learners. The nature of the course and the time constraints of scheduling make it necessary for students not to become "class-reliant" for all of their learning. Students will be responsible for and expected to complete all outside work and readings.

The course will also devote time to reflective writing and critical analysis. Some examples of these types of written projects will include journal entries, policy papers, research papers, and position papers. Emphasis will be placed on producing effective writing styles, the ability to make sound arguments, the ability to critically evaluate scholarly works, and the ability to synthesize political science data.

The expectations and workload given in this course will exceed that of other Participation in Government courses. Work submitted will be evaluated critically by the teacher and graded according to entry-level college standards. ***College Admissions offices expect that students who enroll in AP courses will take the AP exam at the end of the course. Students are required to take the AP Exam in May.***

INTRODUCTION TO PSYCHOLOGY (1/2 Credit)

This course is designed to be an introduction to the study of psychology. The class covers the major pioneers in psychology and includes units of study in the following areas: experimental psychology, social psychology, psychobiology, adolescent psychology, sensation and perception and states of consciousness. Students will research several topics and read several articles about important current topics in psychology.

ABNORMAL PSYCHOLOGY (1/2 Credit)

This course takes a close look at various aspects of the mental health field that relate to the brain and behavior. Units of study include forensic psychology and the criminal mind, childhood and adolescent mental health issues, diagnosing and treating mental illness in the 21st Century and a close look at several common disorders, including anxiety, mood, eating and personality. Students will read several case studies and watch films to study characters who suffer from mental illnesses.

TOPICS IN US HISTORY (Not Offered Every Year) (1/2 Credit)

Topics in United States History is a social studies elective geared for the serious students of United States History. The course will cover in-depth, various topics from our nation's past. Some topics to be covered may include Colonial America, Slavery, and The Civil War, both of the World Wars, the Civil Rights Movement, and Vietnam.

Varied activities will include, but not be limited to, guest speakers, research papers, documentary production, field trips, and student led presentations. Students will take an active role in choosing the topics to be covered and the type of activities done in class.

THE HISTORY OF BASEBALL (Not offered Every Year) (1/2 Credit)

The History of Baseball will explore the story of America's greatest pastime. The course will cover the inception of the game and take us up and through the game as it has evolved in the 21st century. Guest speakers, project based learning, field trips, active playing participation, selected journalistic pieces, statistical analysis, rules changes and interpretations, movies and movie clips, and art will vary the approach on a daily basis to learn about baseball. The course will be student directed in regards to specific topics, events, exercises, and subject matter that the class would like to explore. Part of the course will be a research based project at The National Baseball Hall of Fame Archives and Library in Cooperstown, NY.

THE AMERICAN PRESIDENCY I (Not Offered Every Year) **(1/2 Credit)**

This DL survey course will focus on the 19th and early 20th century American Presidency. The course will offer an in-depth analysis of the formation of the office, its structure and scope, the evolution of the responsibilities and powers, and the men themselves that helped to shape it.

In this humanities based elective, the specific presidencies of Washington, Adams, Jefferson, Jackson, Lincoln, and Theodore Roosevelt will be analyzed and critiqued through lecture, research, debates, readings, and possible field trips. Students will be expected to critical evaluators of primary sources, debate topics of the days, support their positions with research and facts, and draw their own conclusions about the events and issues that helped to shape the times and the Office of the Presidency itself.

THE AMERICAN PRESIDENCY II (Not Offered Every Year) **(1/2 Credit)**

This course will focus on 20th century presidencies of Wilson, FDR, Eisenhower, JFK, LBJ, Nixon, Reagan, and Clinton. The course will offer in-depth analysis about the increased responsibilities that the Presidents and their offices faced with the United States emerging as a world superpower and its involvement in global conflicts.

Domestic and foreign policy issues will be analyzed and critiqued through lecture, research, debates, readings, and possible field trips. Students will be expected to critical evaluators of primary sources, debate topics of the days, support their positions with research and facts, and draw their own conclusions about the events and issues that helped to shape the times and the Office of the Presidency itself.

AMERICA IN THE 1960's (Not offered every year) **(1/2 Credit)**

Seldom has an era been simultaneously exaggerated and oversimplified, reviled and revered. The Sixties are around us today in ways that you may never have dreamed of. This course will examine the events of the 60s including the roots of the decade in the 1950s, the big events of the era (Vietnam War, Civil Rights Movement, Space Race, and Rise of the Counter Culture), the literature, music, art and films of this decade as well as much, much more!

SOCIAL, ECONOMIC & GLOBAL AWARENESS I and II (Current Affairs) (Not Offered Every Year) **(1/2 Credit each)**

Social, Economic & Global Awareness I and II are an in-depth study of the world's most troubled and troubling areas and issues. Genocide, war and terrorism plague today's world at an unprecedented rate. Researchers have calculated that there have been 14,531 wars resulting in over 3 billion deaths. This does not include insurgencies, local conflicts, genocides, terrorist acts or regional fighting, which is often referred to as 'flash points,' 'trouble spots' or 'hot spots,' many of which "spill over" and result in international crises and conflicts. Part I of this course is designed to introduce students to the most troubled and troubling areas of the world in order to increase our understanding of the problems they present. Topics include terrorism, globalization and US foreign policy. Specific attention is directed at the Middle East, Central Asia and Africa as areas of conflict. Examination of the role being played by globalization is investigated by studying its current development in China and India. Part II allows students to do greater in-depth research on selected topics affecting the world scene today while investigating current and possible US policy and response.

AMERICAN HISTORY THROUGH FILM (Not Offered Every Year) **(1/2 Credit)**

This variable-topics course will introduce students to selected themes in American History through the use of popular film. Students will watch and deconstruct popular historical films within the larger context of scholarly analysis of a particular historic period or event. The medium of film will be used to generate discussion and to increase comprehension and understanding of these events/time periods as well as their impact on the development of the United States.

WORLD HISTORY THROUGH FILM (Not Offered Every Year) **(1/2 Credit)**

This variable-topics course will introduce students to selected historical themes throughout World History through the use of popular film. Students will watch and deconstruct popular historical films within the larger context of scholarly analysis of a particular historic period or event. The medium of film will be used to generate discussion and to increase comprehension and understanding of these events/time periods as well as their impact on the world that we live in today.

HITLER/NAZI GERMANY AND THE HOLOCAUST (Not Offered Every Year) **(1/2 Credit)**

This class provides an introduction to Nazi Germany. We will discuss and analyze the Weimar Republic (1919-1933), the rise of Nazism, the Republic's collapse and the Nazi "seizure of power", the importance of Hitler and the "Führer principle", German society under the Nazi regime, popular support and political dissent, Jewish life under the Nazis, the creation and maintenance of a "racial state", National Socialist ideology, anti-Judaism and anti-Semitism in Weimar Germany and the Third Reich, the role of religion and the churches, Germany's role in the Second World War, the Holocaust, and the interconnectedness between war and genocide.

THE HISTORY OF THE CIVIL RIGHTS MOVEMENT (Not Offered Every Year) **(1/2 Credit)**

This half-year social studies elective will examine the development of the Civil Rights Movement in the United States. The course will be taught in the chronological order of the movement and look to its earliest roots in the 19th century to modern day issues related to race relations.

The course will be project, discussion, and lecture based. Students will learn about the movement through critically examining policies, legislation, literature, film, speeches, primary sources, and academic articles. This course is designed for serious students of history and those that would like to explore the Civil Rights Movement and the history of race relations in the United States.

HISTORY OF SLAVERY (Not offered every year) **(1/2 Credit)**

The core focus of this course will be on issues and events that surround the definition of Slavery. We will be studying the main forms of slavery beginning in the ancient world of Sumer and Mesopotamia (3,500 BCE) to modern forms in factories or actual slave trade still in existence. In American history, remnants surrounding the idea of racial superiority are evident in many of our southern states, politics, and governing institutions today. Race riots and social justice to correct past grievances are a part of our daily lives (e.g., Charlottesville, Virginia and Baltimore, Maryland). Modern forms of slavery exist today in many of the world's prisons, factories, large plantations, and employment. Specific issues such as kidnappings, human trafficking, and unfair labor can be seen all over the globe. This class will briefly investigate the main historical origins, development, and current status of important aspects of slavery in historical perspective.

PRESIDENTIAL ELECTION (Offered in the Fall of Every Presidential Election Year) **(1/2 Credit)**

This course focuses on the United States Presidential election. Students learn about all aspects of the campaign, from debates and advertising to speeches and fundraising. The class has students take on the roles of candidates, strategists, and pundits. Participants work in teams to stage debates, design campaign commercials, draft policy memos, and craft fundraising strategies. Students will analyze the results of the election and will monitor the transition between administrations. Students leave the course with a multifaceted understanding of the election—and the American electoral system—in its historical and global context.

TECHNOLOGY EDUCATION

Technology Education is an exploratory program that emphasizes a conceptual understanding of the knowledge and processes that people utilize to satisfy human wants and needs. Students that enroll in any technology course will gain the ability to use, manage, assess, and understand the major technological systems of our society. All technology education courses are open to election by any student.

Technology Foundation Courses

DESIGN AND DRAWING FOR PRODUCTION (1 Credit)

NOTE: Successful completion satisfies the high school Art/Music requirement for graduation

This is an introductory course in the area of design and technical drawing. Students will explore and be familiarized with technical drafting techniques, the universal language of technical drawing, 3D computer modeling, the design process, principles and elements of design, furniture design, product design, environmental design, small modeling and prototyping, and reverse engineering. Students will cultivate creative thinking and decision making skills through various authentic problem-based experiences.

MATERIALS PROCESSING (1/2 Credit)

Materials processing is designed to give students practical knowledge about the way humans convert various materials into useful products. The course focuses on processing a variety of materials such as wood, metal, plastic, and composites through techniques of forming, separating, combining, and conditioning. Hands-on activities will include product design, product layout, hand and machine tool use, fastening, finishing, and school and community involvement.

Technology Elective Courses

ARCHITECTURAL DRAWING (1/2 Credit) (Not Offered Every Year)

Students will explore the topics of architectural history, drafting tools and techniques, functional diagrams, floor plan design, sectional drawings, exterior elevations, site plans, perspective drawings, architectural dimensioning, energy efficiency, and career exploration. Students will also be given the opportunity to solve real world problems through hands-on, minds-on architectural modeling activities.

COMPUTER AIDED DESIGN (1 Credit)

Pre-requisite: Design and Drawing for Production

This course is designed to increase a student's experience in the drafting area while introducing them to AutoCAD software. High quality standardized technical drawings will be produced in an easy and efficient manner. Students will have the opportunity to explore and create a variety of multi-view, orthographic, section, pictorial, perspective, and architectural drawings.

ELECTRONIC PUBLISHING AND DESIGN (1/2 Credit) (Not Offered Every Year)

This introductory electronic design and communications course will immerse students in graphic design, typography, digital photography, illustration, composites, web design, and marketing. Concepts that will be explored will focus on creativity, designing a message, principles and elements of design, aesthetic understanding, critical thinking, problem solving, and teamwork. Students will utilize the Adobe InDesign and Illustrator software to develop professional publications and will have the opportunity to publish their designs in the Maple Hill Wildcat yearbook.

MATERIALS PROCESSING II (1/2 Credit) *Pre-requisition: Materials Processing*

The course will be built on the principles of tool use for advanced woodworking projects. The course will also build on welding practices from Materials Processing I. This will be a major focus of the class and will use the multiple types of welding that are available in the shop (MIG, Stick, and Braze welding). Projects in welding will include students own artistic creations and also projects that will be used for the betterment of the school, its facilities, and its sports and clubs.

AR/VR INTRODUCTION TO REALITY (1/2 Credit)

This course is designed to introduce students to how VR (Virtual Reality) and AR (Augmented Reality) are used in the education and real world. It will entail investigating various programs, evaluating educational use, as well as designing a project in VR and then AR . This course is for Juniors and Seniors in good standing.

ENERGY SYSTEMS (1/2 Credit) (Not Offered Every Year)

Recommended: Design and Drawing for Production and Materials Processing

This course will peer into the realm of alternative energy. Study will focus on various energy systems including: solar, wind, photovoltaic, geothermal, gravitational, and nuclear. Renewable versus non-renewable energy, energy conversion, and energy conscience design will be the primary focus in each of these energy systems. Students will engage in designing, constructing, testing, and evaluating fundamental and experimental alternative energy projects.

PRINCIPLES OF ENGINEERING (1 Credit)

Pre-requisite: Design and Drawing for Production, two years of regent's science, and geometry

Recommended: Computer Aided Design, it is also recommended that the student take Physics concurrently with this course

Principles of Engineering is an integrative, hands on laboratory-based elective course which introduces students to concepts related to engineering. Students will employ engineering, mathematics and scientific theories in the solution of engineering design problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work, in an appropriate college level documentation style, and communicate their solutions to their peers and members of the professional community. Principles of Engineering has been developed to be a capstone course for academically able students, which integrate the study of math, science, and technology.

DL AP COMPUTER SCIENCE PRINCIPLES (1 Credit)

In this college-level introduction to computer science course, students learn underlying principles of computation through creation of computing applications that address real world problems. Hands-on laboratory and project-based experiences develop students' understandings of abstraction, algorithms, cybersecurity, programming, large data sets, and the Internet. Students explore Computer Science's influence on the arts, sciences, and business, as well as on social and economic change. An emphasis is placed on developing problem-solving skills, as well as computational and algorithmic thinking skills.

In accordance with AP requirements, students will complete two in-class portfolio assignments and take the AP exam in May, for which a fee is charged. Colleges may grant credit or advanced placement based on exam results.

DL AP COMPUTER SCIENCE (JAVA) (1 Credit)

Through hands-on labs and project-based experiences, students learn to design and implement programs in Java that solve complex computing problems relevant to today's society. This includes the development and analysis of algorithms and fundamental data structures, and the use of logic and formal methods. Students who take the AP CS A course and exam are well prepared to pursue computer science and its integration into a wide array of computing and STEM-related fields.

Students will take the AP exam in May, for which a fee is charged. Colleges may grant credit or advanced placement based on exam results.

Career and Technical Education

Maple Hill High School in cooperation with Questar III has made it possible to offer every student an opportunity learn a marketable skill or trade while completing a high school education. Students spend half of each day at Maple Hill and the other half at the Rensselaer Educational Center in Troy. The courses of instruction are of one or two-year duration, depending on the subject. Students in courses ending in licensure must meet the hourly requirements set for the license to be earned. Presently, the Cosmetology program requires New York State licensure examinations at the conclusion of the courses.

All students are enrolled through Maple Hill's Guidance Office, where their counselor has complete course descriptions and time requirements. A sequence will be arranged which, when satisfactorily completed, will assure high school graduation. An annotation of the **Career and Technical Education Endorsement** will be denoted on the diploma for those students who complete an approved Career and Technical Education program, successfully complete the technical assessment designated for their CTE program and achieve passing scores on Regents exams required for the student's diploma type.

The following programs are presently offered at the Rensselaer Educational Center. However, these can change from year to year.

2020 – 2021

Educational Center Courses

Academy for Educational Careers (Seniors Only)
Automotive Technologies I & II
Certified Nurse Assistant (CNA) (Seniors Only)
Construction Technologies I & II
Cosmetology I & II
Criminal Justice I & II
Culinary Arts I & II
Heating, Ventilation, Air Conditioning (HVAC) & Renewable Energies
Heavy Equipment Operation & Maintenance
Information Technology I & II
Theater Institute at Sage (TIS) (Seniors Only)

New Visions Programs

New Visions Medical
Science, Technology, Engineering & Math (STEM)
Scientific Research & World Health
Visual & Performing Arts

EDUCATIONAL CENTER COURSE DESCRIPTIONS

Automotive Technologies I & II

Utilizing state-of-the-art professional tools and computer systems, students learn automotive repair and maintenance skills. The program is Automotive Service Excellence (ASE) certified from the National Automotive Technicians Education Foundation (NATEF). This means the program meets or exceeds industry-recognized, uniform standards of excellence.

Construction Technologies I & II

Students learn the skills necessary for employment in construction and renovation while being introduced to the growing fields of home energy efficiency and green building. Students also complete the OSHA 10 Hour Safety Certification course and participate in real work experience where they learn framing, roofing, trim carpentry and other finishing skills.

Cosmetology I & II

Cosmetology is a rigorous program with a 1,000-hour requirement providing academic and clinical setting instruction focusing on emerging trends in the beauty industry. Instruction includes all aspects of a salon career including haircutting, hair coloring,

skin care, nail care, and salon business. Students are required to complete a solon internship with a local business. Upon successful completion, students will be eligible to take the NYS licensing exam for Appearance Enhancement/Cosmetologist.

Criminal Justice I & II

Through classroom instruction, field trips and meetings with professionals in the field, students learn state-of-the-art techniques to prepare for post-secondary studies or a career in law enforcement and the criminal justice system. Students also have the opportunity to complete Security Guard, 911 Public Safety Telecommunicator, and several FEMA Certifications.

Culinary Arts I & II

Questar III's Culinary Arts is a two-year program that teaches students the management and culinary skills needed for a career in the hospitality industry, including classroom study, lab work, mentored work experiences, and the opportunity to test their skills in competitions. The curriculum is based on ProStart, supported by the National Restaurant Association Educational Foundation.

Heating, Ventilation, Air Conditioning (HVAC) & Renewable Energies

Using classroom instruction and project-based learning, this course teaches students how to design, install and repair HVAC systems. Students also explore emerging technologies (including wind, solar and geothermal) and receive extensive training in home energy efficiency. Students can earn EPA certifications and an OSHA 10 Hour Safety Certificate.

Heavy Equipment Operation & Maintenance

Students learn to operate, maintain, diagnose, and repair construction-related equipment such as backhoes, bulldozers, bucket loaders, excavators and skid steers. Students will complete the OSHA 10 Hour Safety Certificate and work towards a CDL-B license.

Information Technology I & II

Students explore networking, coding, and cybersecurity fields and applications. Students can choose between the Cisco Networking Academy pathway and the Computer Programming pathway for more in-depth study on either installing, configuring, and troubleshooting networks or programming using a variety of coding languages.

FOR HIGH SCHOOL SENIORS ONLY

Academy for Educational Careers

This program focuses on preparing students for a variety of careers in the education field. Students will be shadowing educational professionals including classroom internships as well as studying educational theory, effective classroom management and the NYS certification requirements. Upon completion, students will be eligible for College in the High School credits and to take the NYS Level I Teaching Assistant certification.

Certified Nurse Assistant (CNA)

Through classroom theory, laboratory and hands-on clinical instruction, students who complete the program are eligible to take the NYS Nursing Home Nurse Aide Competency Exam. Students complete clinical rotations at a local nursing home or facility.

Theater Institute at Sage (TIS)

The TIS Internship program is an intensive, one semester theater experience that is based on the internship program model used by the former New York State Theater Institute (NYSTI). Students will work on four productions during the semester while earning high school credit and taking college courses.

NEW VISIONS PROGRAMS

Academically Challenging Programs for High School Seniors Only

New Visions Medical

Located at Samaritan Hospital in Troy, students shadow health care professionals for 40 to 50 mornings throughout the year, observing everything from surgery to physical therapy. Students complete Human Biology and an English course at Russell Sage College, as well as Anatomy and Physiology on the Hudson Valley Community College campus. This course is ideal for students planning to pursue a clinical health profession that requires at least 4 years of college.

Science, Technology, Engineering & Math (STEM)

STEM students are at the forefront of technology in all fields. They explore careers that: combat world hunger; rescue the environment; save thousands of children from fatal disease; and, help millions of people live more comfortable and productive lives. Students study how to implement state-of-the-art science as they explore the world of technology and engineering on the campus of Rensselaer Polytechnic Institute.

Scientific Research & World Health

Gain a worldwide perspective on health using scientific principles to promote community well-being and cure disease. This college level academic experience is offered to accelerated high school seniors interested in future careers in medicine, healthcare, biotechnology, pharmacy, biomedical research, etc. This program involves hands-on laboratory research in the emerging biotechnologies, scientific literacy and global health. Located at the University at Albany's Health Sciences Campus in Rensselaer, students participate directly in health focused research.

Visual & Performing Arts

This unique program provides opportunities to explore a wide array of careers in the visual and performing arts. Based at The Arts Center of the Capital Region in Troy, the program blends an integrated curriculum in college-level English, music, art, theatre and film studies with hands-on experience in a creative academic environment.

Distance Learning

Distance Learning is learning that takes place via electronic media linking instructors and students who are not together in the same classroom. 42 sites across twelve (12) counties served by six (6) BOCES in northeastern New York are joined together in this cooperative program to expand educational opportunities to our students.

Schodack Central Schools moved forward in September of 2007 with this cutting-edge educational opportunity with the opening of a Distance Learning Lab. Distance Learning programs allow our students to enroll in courses that we might otherwise have to by-pass or eliminate due to low enrollment or teacher availability.

The lab, housed in a classroom at the high school, allows our students to take courses that could never be offered in a traditional classroom. Besides the traditional courses students can take, Maple Hill students also have the opportunity to take courses from across the state.

Some of the advantages of Distance Learning Program for Maple Hill students:

- Allows more opportunities to take college level courses during their high school career.
- Expands the number and variety of courses available to our students.
- Enables our students to learn and operate in a setting similar to the kind of world they will live in as adults.
- Enriches student experience, enabling young people to learn from both peers and faculty members in other communities.
- Encourages creativity and participation.
- Offers professional development opportunities to instructors, district personnel and the greater community.

Detailed course descriptions of Distance Learning courses can be found at <http://www.dl.neric.org>.

Implications For Students With Disabilities

Students with disabilities shall have access to the full range of programs and services appropriate to their individual needs. Instructional techniques and materials must be modified to allow these students to meet diploma requirements. The Committee on Special Education will consider what instructional techniques and modifications are being provided during the annual review process so that appropriate recommendations for revisions can be made.

Students with disabilities are allowed alternative testing techniques, as indicated on the IEP. The purpose of the alternative procedures is to allow the student to perform to his or her abilities by circumventing the disability.

Curriculum Support and alternative testing methods are available to help support students in their high school program. Students identified as having a disability may be exempted from a second language requirement if a student's IEP states that such requirements are not appropriate.

A student with a disability may be awarded a Career Development and Occupational Studies (CDOS) Commencement Credential either as a supplement to the high school diploma or as an existing credential if unable to earn a high school diploma provided that:

- 1) he/she demonstrates attainment of the commencement level CDOS learning standards in career exploration and development, integrated learning and universal foundation skills; completes a career plan and employability profile; completes the equivalent of 2 units study (216) hours in Career and Technical Education coursework and at least 54 hours of work-based learning.

OR

he/she meets criteria for a national work readiness credential.

- 2) he/she has attended school for at least 12 years, excluding kindergarten, or has received substantially equivalent education.

Transfer Students

Students who transfer into the state may not be responsible for meeting all education requirements, depending on when they enter.

Students who transfer into the state public school system before the completion of grade 9 will need to complete second language K-9 requirements before graduating from high school. Students who transfer in after completing grade 9 are exempt from the K-9 requirements.

Transcripts of students from out of state entering after the beginning of grade 9 will be evaluated and appropriate credit will be awarded. Generally, transfer students shall meet Regents test requirements. However, transcripts of those entering in grade 11 or 12 will need to be reviewed in order to determine the need for Regents testing and the student may be exempted from tests ordinarily required.

A special provision is made for students who transfer between high schools in grades 11 or 12. If the language in which such students began their sequence is not offered in the school to which they have transferred, such students must complete three units of second language credit, but not necessarily in a single language.

Specific requirements for out-of-state transfer students can be found at www.emsc.nysed.gov

Early Admission to College

Occasionally a very strong student will be interested in starting college a year early. Juniors accepted to college may complete high school graduation requirements during the freshman year of college. This option is open to students who have completed an application form, available in the guidance office, and have arranged their junior year schedule to complete most requirements. Students must complete college courses comparable to those missed in high school. Upon receipt of college transcript, students will be eligible for a Maple Hill diploma and may participate in graduation. Early advisement from the guidance office is very important.

Options for Seniors

Seniors may attend school for a half-day if they wish to attend college in the afternoon. Many nearby colleges welcome high school students who wish to try a class each semester. Usually the course credit may be transferred to other colleges.

Alternate Ways of Earning Credit

Students who attend school full time have the option of earning up to six and one-half credits of the twenty-two required without completing specific courses of study. This may be done as follows:

The student achieves 85% or better on state-developed (e.g. Regents exams, proficiency exams) or state-approved exams, and the student passes an oral examination or completes a special project. Requests must be made in writing at least six months prior to the Regents exam being challenged. Student should contact the guidance office for required paper work. In the area of science, lab requirements must be met prior to taking a Regents exam.

Art and music credit may be earned through participation in a performing group (e.g., band, chorus, orchestra, dance group, theater group, etc.) or by participating in advanced, out-of-school art or music activity as approved by the local district.

Remediation - Grades 9 - 12

Changes in New York State requirements for graduation will necessitate that students pass certain Regents exams. All students who fail the Regents exams in English mathematics, global studies, science, or history and government shall be provided appropriate remedial instruction designed to enable them to pass these tests by the time they are otherwise qualified to graduate. The student and his/her parent or guardian shall be notified in writing, by the principal, of the test results and the plan for remedial instruction.

Student Annual Review - Grades 7 - 12

The school counselor shall conduct an annual review with each student individually, or in small groups to discuss his/her education, career, and/or social development, plans and progress.

Community Involvement

To be eligible for high school credit for volunteering time and energy to non-profit or not-for-profit organizations, students must meet certain criteria. The student must be enrolled as full-time student at Maple Hill High School in grades nine through twelve; the student must do solely volunteer work; and the voluntary work must be verified by the supervisor of such work by completing an application for "Community Involvement Credit."

A student must be involved in the organization for no less than six hours per week during each marking period, but the student may earn credit during the summer if the criteria are met. To earn one-quarter credit, a student must accumulate at least fifty hours of volunteer work. No more than one full credit may be awarded each academic year. Four credits of Community Involvement may be used toward elective graduation credit, but Community Involvement is not to be considered as a major sequence.