Graduation Requirements

New York State Graduation Requirements

A Regents diploma will be awarded upon completion of 22 credits (see table) and passing of 5 required Regent's exams with a score of 65 or better. A Regents diploma with Advanced Designation will be awarded upon completion of 22 credits (see table) and passing any one of the Regents exam combinations and/or department-approved (see Regents with Advanced Designation section).

Content Area	Credits Required for Regents Diploma	Credits Required for Regents Diploma with Advanced Designation
English	4	4
Social Studies	4	4
Math	3	3
Science	3	3
Physical Education	2	2
Language Other Than English	1	1
Art/Music	1	1
Health	.5	.5
Electives	3.5	3.5

Required Credits

TOTAL 22 22

Regents Diploma

Complete all course requirements and score 65% or better on five Regents exams as follows: 1 Math, 1 Science, 1 ELA, 2 Social Studies.

Regents with Honors

Complete all course requirements and have a computed average score of 90 or better on five Regents exams as follows: 1 Math, 1 Science, 1 ELA, 2 Social Studies.

Regents with Advanced Designation

Complete all course requirements and pass any one of the following combinations of Regents exams and/or department-approved alternatives if applicable:

- 1. Traditional Combination: ELA, Global History and Geography, US History and Government, 3 Math, 2 Science (1 must be life science and 1 must be Physical Science) = 8 Assessments
- Pathway Combination (other than STEM (Science, Technology, Engineering, and Math)): ELA, 1
 Social Studies, 3 Math, 2 Science (1 must be Life Science and 1 must be physical science), and
 either 1 Pathway (other than science or math) or meet the requirements for the CDOS
 Commencement Credential = 7 or 8 Assessments
- 3. STEM (Math) Pathway Combination: ELA, 1 Social Studies, 4 Math, 2 Science (1 must be Life Science and 1 must be Physical Science) = 8 Assessments
- 4. STEM (Science) Pathway Combination: ELA, 1 Social Studies, 3 Math, 3 Science (1 must be Life Science and 1 must be Physical Science) = 8 Assessments

In addition, a student must pass either a locally-developed Checkpoint B LOTE exam or complete a 5-unit sequence in the Arts or CTE (Career and Technical Education).

Regents with Advanced Designation (Mastery in Math or Science)

Complete all course requirements and meet all assessment requirements for the Regents with Advanced Designation and, in addition, score 85 or better on each of three Regents exams in Math or Science.

Regents with Advanced Designation with Honors

Meets all assessment requirements for the Regents diploma with advanced designation (see above) with a computed average score of 90 or better (no more than 2 department-approved alternatives may be substituted and will not count in the computed average).

Arts

Visual Arts

STUDIO IN ART

1 Full year, 1 HS credit: 0 college credits

Students will be expected to participate in studio practices in alignment with the NYS Standards for the Visual Arts. Studio In Art is the foundation course that addresses Presenting, Creating, Responding and Connecting to artworks. In this choice-based class, students will investigate traditional themes, skills and practices while learning what it means to be an artist. Students will draw, create compositional plans/sketches, take notes, investigate and write as part of a well-maintained course sketchbook. Fully Elaborated Artworks (FEAs) will be created in a variety of mediums such as pencil, colored pencil, collage and paint. It is strongly recommended that students take this course in 9th grade. Students who successfully complete the Studio In Art course and wish to expand their experiences in an in-depth manner, should sign up for the Elective Art courses listed below during their 10th-12th grade years.

Prerequisite Course for all Elective Courses in Visual Arts, Available to Grades 9-12

DRAWING AND PAINTING 1

1 Full year, 1 HS credit: 0 college credits

This course is for students interested in developing artistic skills in 2D mediums. This is a choice-based drawing and painting course. Students will use various mediums including pencils, pastels, micron pens and various paints. Students will develop their art practices using portraiture, still-life, interiors, landscape, and abstraction as themes for personal expression. Historical and cultural investigations will guide the student's creative process. Students will be expected to critique and reflect on their own work and their peers'. Drawings, sketches, Fully Elaborated Artworks (FEAs) and written responses are expectations for successful completion of the course in alignment with the NYS Standards.

Prerequisite: Studio In Art, Available to Grades 10-12

CERAMICS

1 Full year, 1 HS credit, 0 college credits

Students taking Ceramics will explore traditional hand building techniques in clay to produce 3D functional and sculptural Fully Elaborated Artworks (FEAs). Students will maintain a sketchbook for drawing plans, taking notes and documenting skills/techniques based on their investigations. Students will be offered the opportunity to work on the potter's wheel. Written reflections are part of the creative process along with critiques and presenting their works in alignment with the NYS Standards.

Prerequisite: Studio In Art, Available to Grades 10-12

DRAWING AND PAINTING 2

1 Full year; 1 HS credit; 0 college credits

This course is designed to take students through a concentrated experience in developing and improving drawing and painting skills to hone the artist's ability to successfully convey their own ideas. Skills emphasized include working from observation and developing strong original compositions through

practice, experimentation, and revision. Students will use a wide variety of familiar drawing and painting materials, and experience opportunities to work with others including oil paint, monotype, and others. Students are encouraged to continue to develop observational and expression skills in sketchbooks using assigned kits of materials on their own. In-class experiences range from works of art designed by the instructor to works of art directed by the student in pursuit of the student's own expression and voice, all are aligned with the NYS Visual Arts Standards. NYS Visual Arts Standards include creating, responding, connecting, and presenting works of art. Students successful in this course will not only be successful in the AP (Advanced Placement®) Art and Design course but will find the AP course enjoyable too.

Prerequisite: Studio In Art and Drawing and Painting 1, Available to Grades 11-12

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SCULPTURE

1 Full year; 1 HS credit; 0 college credit

Students taking Sculpture will explore traditional carving and construction practices in a variety of 3D mediums 9ie: clay, wire, plaster, foam core etc.) to create Fully Elaborated Artworks (FEAs). Students will maintain a sketchbook for drawing plans, taking notes and documenting skills/techniques based on their investigations. Written reflections are part of the creative process along with critiques and presenting their works in alignment with the NYS Standards.

Prerequisite: Studio In Art and Ceramics, Available to Grades 11-12

DIGITAL ART, ANIMATION AND GRAPHICS

1 Full year; 1 HS credit

This course is a 100% computer-based approach to making art where students will learn and use professional, industry-standard level software to create art on high-end Microsoft Surface Book computers with draw on screen capabilities. An introduction to Adobe software to create works in digital art, animation, and graphic design is the focus of the course. Students will use: Adobe Illustrator, Adobe Photoshop, Adobe After Effects, and Adobe Animate. Students will also be introduced to Krita and Blender (3D). Experiences will include exercises to learn the software followed by creation of works of art that explore ideas in Graphic Design (posters, motion graphics, other text and image art), Illustration (illustrations for articles, books, publications), self-expression (digital art), and storytelling (animation). All experiences are aligned with the NYS Visual Arts Standards which include creating, responding, connecting, and presenting works of art. Students who find they are successful in this course and enjoy working in this medium will also enjoy SUNY Sullivan Computer Graphics 1, and/or AP Art and Design 2D.

Prerequisite: Studio In Art, Available to Grades 10-12

SUNY SULLIVAN COMPUTER GRAPHICS

1 Full year; 1 HS credit; 3 college credits via SUNY Sullivan; transfer credit is determined by the college you attend but could be used as an elective in majors other than art.

This course serves as an introduction to the computer's use in graphic arts or graphic design. Students learn how to create and modify art using image editing, drawing, and publishing programs. Students also learn the relationships between software programs.

Prerequisite: Studio in Art and Digital Art, Animation and Graphics, Available to Grades 11-12

ADVANCED PLACEMENT ART AND DESIGN: 2D DESIGN OR DRAWING

Juniors and Seniors WITH PERMISSION ONLY

1 Full year, 1 HS credit; college credit is determined by where you attend; it is possible to use this course as an elective credit in other than art majors.

AP (Advanced Placement) is a college-level course, with college-level expectations, based on creating an art portfolio during the year that in turn is used as the AP exam in May. Students in the AP Art and Design course do not sit for an exam, they submit the works of art they made during the year via an online College Board portfolio site. The portfolio requires students to adhere to a rigorous timeline both in class and work at home, with a required 15 images/works of art to be completed by May of that year. This means that students will create a fully elaborated and planned work of art about every three weeks. All AP portfolio requirements are required by the College Board and followed by the AP Art and Design teacher. For example, students are expected to document and submit in their portfolio evidence of the process of critique, and feedback, followed by revision of their works of art. The 2D Design portfolio focuses on the principles of art and design, the drawing portfolio focuses on specific elements of art. At this level, students are expected to create original works of art that strictly adhere to anti-plagiarism guidelines set forth by the College Board. Original works of art, and self-made resources are expected at this level.

Students must see AP teacher for permission and Pre-course assignment. Students who sign-up to take this course must submit the AP Art and Design Summer Assignment the first week of the start of the course. Available to Grades 10-12

Performing Arts

The Performing Arts inspires and develops the intellectual and creative potential of our students. Cited for over a decade as one of the Best Communities for Music Education in the country, Monticello High School offers a comprehensive and high-quality program in Music and Dance.

Knowledge Courses - Music

ADVANCED PLACEMENT MUSIC THEORY

Full year; 1 credit

This course is designed for the student who is fluent in music reading. Demands of this course are comparable in content and expected level of accomplishment to a first-year college music theory course. Strong emphasis is given to listening skills, particularly those involving recognition and comprehension of the musical elements and compositional techniques.

Prerequisite: Permission of instructor. Grade 11 or 12

MUSIC TECHNOLOGY I, II

Full Year: 1 credit

Music Technology is a course designed to give students an insight into the world of sound recording, audio production, and music creation. The course is designed to provide students with an understanding of music through listening, performing and creating with a focus on using modern music-based technologies. Students will learn the art of audio recording, composing using electronic devices, editing music and mixing sounds. The class will also utilize a variety of professional grade production programs to explore the art of sound and music creation, including Garageband and Logic Pro. In addition, students will explore the different areas of the modern music industry where music technology is used most, such as podcast creation, commercial production, movie scoring and album mixing.

Music Technology is open to all high school students (10-12) who have taken a music course in 9th grade, or by permission of instructor.

HISTORY OF MUSIC

Full year; 1 credit

Designed for the serious music student, this full year course surveys the music of the Modern Era (Pop, Rock, Jazz, Hip-Hop) and its predecessors in cultural and stylistic context. This hands-on course develops informed listening skills to help students understand the changes in musical style and compositional technique over the centuries and does so through interactive experiences including field trips to local music venues. Students will listen to, perform, and compose works from plainchant to the present using traditional musical instruments as well as technology-based resources (Logic, Garageband etc.). Students will also explore relevant historic, social, political, and technological events to help them understand the context in which composers and performers created their music.

Prerequisite: Music teacher recommendation or permission of instructor. Grades 10, 11, 12.

Performance Courses - Music

As part of the Performing Arts program, students are given the opportunity to perform in varying types of both small and large ensembles. In addition, several music electives include small group lessons that students take once a week. These lessons rotate by period through the week and are scheduled during the school day as part of the course requirement. Students are expected to practice daily in preparation for their lessons. These lessons allow students to receive individual attention, and reinforcement of the physical and mental skills needed to succeed in their performance-based course.

EMERGING ENSEMBLES

Grades 9-12, full year; 1 credit

Formerly referred to as Chamber Music, this course is designed to enrich the advanced performance student. Students work in small ensembles designed by instructors. The group participates in school concerts, assemblies, civic events, and NYSSMA Evaluation Festivals.

Prerequisite: Music teacher recommendation or permission of instructors.

CONCERT BAND

Grades 9-12, full year; 1 credit

Concert Band is an organization composed of woodwind, brass and percussion students. Students will learn an extensive repertoire representing the best of the world's music, balanced by attention to theory, skill development and listening. The group participates in school concerts, assemblies, civic events and NYSSMA Evaluation Festivals.

Prerequisite: Participation in middle school band OR an audition. Rotation lessons required.

STRING ORCHESTRA

Grades 9-12, full year; 1 credit

Through contact with an extensive repertoire of String Orchestra literature, and performance of NYSSMA level music, balanced by attention to theory, skill development and listening, this organization provides the students with the opportunity of performing in school concerts, the annual spring musical, civic events and NYSSMA Evaluation Festivals.

Prerequisite: Participation in middle school orchestra or an audition. Rotation lessons required

CONCERT CHOIR

Grades 9-12, full year; 1 credit

Participation in this organization will provide students with an advanced choral music experience. Emphasis is on listening skills, proper vocal technique, music reading, and basic terminology and concert preparation. This group participates in school concerts, assemblies, civic events and the NYSSMA Evaluation Festival.

Prerequisite: Participation in middle school performing groups OR an audition. Rotation lessons required.

PERFORMANCE SKILLS I, II, III

Grades 9-12, full year; 1 credit

This course is designed for continued study on instruments not typically used in the traditional performing organizations. Available for study: keyboard instruments (piano, electric keyboard) and guitar (acoustic, electric and bass guitar). In addition to learning guitar and keyboard other opportunities exist including but not limited to banjo, ukulele, mandolin, recorder, popular and jazz singing, and some music technology. Students will learn repertoire representative of different musical styles, balanced with written theory and listening skills. Participation in NYSSMA Evaluation and taking advantage of performing opportunities is strongly encouraged. All students will perform in solo and/or small group settings in front of their peers. Rotation lessons on guitar or piano are required.

Performance Courses - Dance

DANCE I

Grades 9-12, full year; 1 credit

Dance I provides an in-depth introduction to dance. This dance class is designed to expose new dancers to ballet, jazz, and street jazz/hip hop. Student learning includes opportunities to develop kinesthetic awareness, proper body alignment, physical strength, flexibility, and endurance. Dance elements and basic principles of composition are studied and practiced. Students use creative and critical thinking skills to create and communicate meaning through dance movement. Students experience the role of both choreographer and dancer and have opportunities to present their work. Through the study of dance in various cultures and historical periods, students broaden their understanding of dance as an art form. Throughout the year students will have the opportunity and will be expected to participate in performances. It is mandatory that all students perform in the annual Spring Dance Concert. All female students in beginner dance need half-sole shoes, skin tone tights, black tights, and a black leotard. All male students need black dance half-sole shoes, black jogger/fitted pants, and a black v-neck t-shirt.

No pre-requisites are required for this course.

DANCE II

Grades 9 -12 *May be taken multiple years. Full year; 1 credit

The Dance II course is designed to increase the ability of the devoted dancer. It emphasizes students' acquisition of intermediate movement skills and refined motor control through the study of various dance techniques, including ballet, modern, and jazz/street jazz. Students further their development of skills progressing from beginning dance through exploration of improvisation, dance elements, and composition as both dancer and choreographer. Students extend their understanding of dance as an art form through consideration of aesthetic and philosophical perspectives. Further awareness is enhanced through the study of dance kinesiology, dance history, and choreography. Students will study various modern dance elements such as Alvin Ailey American Dance theater and Laban movement. They will also extend their knowledge into jazz through vocabulary and technique. Throughout the year students will have the opportunity and will be expected to participate in performances. Students will perform in the December Holiday show and the Spring dance showcase. All female students need half-sole shoes, nude tights, black tights, and a black leotard. All male students need black half-sole shoes, black jogger fitted pants, and a black v-neck t-shirt.

Prerequisite: Dance I and/or teacher recommendation.

ELEMENTS OF DANCE (DANCE III)

Grades 10-12, full year; 1 credit

This course is a sequential knowledge-based course, designed for students who have technical dance experience through previous high school credits and/or private study. The scope of this course offers students a study of dance in terms of history, styles, criticism, technical and stage production, choreography/improvisation, performance, artistic processes, collaboration, cultural influences, self-identity and advocacy. Dancers are expected to perform for multiple occasions through the school year including, December Holiday Performance, Monti High Dance Competition, Spring Dance Show, and other community events. Dancers will perform their own original work as well as the class choreography. All female students

need half-sole shoes, nude tights, black tights, and a black leotard. All male students need black half-sole shoes, black jogger fitted pants, and a black v-neck t-shirt.

Prerequisite: Dance I, II and/or teacher recommendation.

DANCE MUSIC COLLABORATIVE (DANCE IV)

Grades 10-12, full year; 1 credit

This course strives to establish dancers as collaborative artists, choreographers, and soloist performers. The goal is to create a constructivist atmosphere where students work to explore a broader connection to the performing arts by using multiple levels of genres of dance. With this understanding, students are expected to engage in collaborations with other dancers, and artists to demonstrate their knowledge through literacy, choreography and performance. Dancers are required to perform multiple pieces in the Holiday Dance Show, 1-2 pieces in the Monti High Dance Competition, and multiple pieces in the spring show. The possibility exists that some dancers may remain in Dance IV for multiple years and may not progress fully to Dance V. All female students need half-sole shoes, nude tights, black tights, and a black leotard. All male students need black half-sole shoes, black jogger fitted pants, and a black v-neck t-shirt.

Prerequisite: Dance I, II, III and/or teacher recommendation.

Business - Academy of Finance Program

Grades 9 & 10

AOF Entrepreneurship
AOF Delivering Great Customer Service/Marketing

Grade 11

AOF Accounting*
SUNY Sullivan Computer Applications*

Any class offered to grades 9 & 10 may be taken in grade 11

Grade 12

AOF Financial Decision Making/International Business* AOF Principles of Hospitality and Tourism/Sustainable Tourism* SUNY Sullivan Financial Accounting

Any class offered to grades 9, 10, and 11 may be taken in grade 12

* Required courses

AOF ENTREPRENEURSHIP

Full year; 1 HS Credit

Entrepreneurship provides students with an understanding of the critical role played by entrepreneurs in the national and global economy. Students learn not only the skills necessary to become entrepreneurs but also the attitudes, characteristics, and techniques that successful entrepreneurs have and that students will need to succeed. The Entrepreneurship curriculum approaches student learning experientially by encouraging students to evaluate, develop, and work with the business ideas they already have or those they conceive during the course.

Integral to the curriculum is a culminating project that teaches students to research the market and develop a business plan. Students learn to work in teams and develop a business idea that fills a need in the market. In the process of completing their project, the students learn to create a marketing plan (for their business), make financial projections, assess the risks inherent in a new venture, and develop an understanding of a code of ethics that guide their business actions and relationships.

Open to grades 9-12.

AOF DELIVERING GREAT CUSTOMER SERVICE/MARKETING

Full year: 1 HS Credit

In the first half of this course, students learn the concept of service as a critical component of a hospitality or tourism business. It combines current theory and practice with observations of customer service in action, role-play, and critical analysis of models. Topics include trends, the psychology of interactions between

customers and providers, the phases of customer service, common mistakes, internal customer service, management, and customer feedback. Students begin to appreciate how the quality of customer service has wide-ranging implications for all professional endeavors.

In the second half of the course, students become familiar with each phase of marketing and with strategies to build business and brand equity, for both large-scale operations and smaller businesses. They learn how to assess marketing niches, understand customer and consumer needs, and conduct basic market research. As students study the benefits and potential drawbacks of various marketing channels, they develop an integrated marketing campaign that uses a range of appropriate marketing channels. Finally, this course explores career opportunities in the field of marketing.

Open to grades 9-12.

AOF ACCOUNTING

Full year; 1 HS Credit

Emphasis is placed on basic accounting theory and the flow of work through the accounting cycle. This course covers the general journal, ledgers, and the analysis of financial statements. The concepts are reinforced as students create real estate development businesses, and record and analyze financial transactions through the game of Monopoly. Manual and computer applications are explored. **Required for AOF Juniors.**

SUNY SULLIVAN COMPUTER APPLICATIONS (cpt-1207)

Full year; 1 HS Credit; 3 SUNY Sullivan credits

This course is designed to teach students intermediate & advanced functions of MS Office software. Students will construct and format common business documents, flyers, and multiple-page reports using Microsoft Word. Using Microsoft Excel, students will construct and format simple spreadsheets, use formulas and functions, and enhance a workbook with charts and graphs. Using Access, students will build and modify simple data tables, create queries, on-screen forms and reports. Using PowerPoint, students will construct and edit on-screen presentations.

There is a per-credit fee for this course. Financial assistance is available.

Required for AOF Juniors.

AOF FINANCIAL DECISION MAKING/INTERNATIONAL BUSINESS

Full year; 1 HS Credit

Financial decision making and planning is the process of managing finances in order to meet life goals. This course coordinates all aspects of finances--earning, spending, saving, investing, tax planning, retirement planning and estate planning. The topics of credit, risk management, and insurance are also covered. In addition, students learn federal and NYS tax law, become IRS certified, and prepare basic level tax returns for qualified community taxpayers through the IRS Volunteer Income Tax Assistance (VITA) program. International Business provides students with an understanding of how and why businesses choose to expand their operations into other countries. The course begins with an overview of globalization, including global factors compelling companies to expand into other markets in order to remain competitive. Students explore cultural, economic, and political differences that affect business operations and decision making.

They then learn the fundamentals of international trade, investment, and finance, including the role of international financial institutions such as the World Trade Organization, the International Monetary Fund, and the World Bank. Students study the business strategies that enable companies to compete effectively in a global economy. Finally, students explore international business as a potential career. Required for AOF Seniors.

AOF PRINCIPLES OF HOSPITALITY AND TOURISM/SUSTAINABLE TOURISM

Full Year, 1 HS Credit

In the first half of this course, students are provided an overview of the current hospitality and tourism industry. Students take a brief look at the history of the industry to understand the degree to which it has changed in the past century. They learn about traveler motivation and consumer needs and how these factors affect current offerings in the lodging, transportation, food and beverage, and entertainment sectors. Students consider the economic and environmental impacts of the industry on the world today. They receive exposure to the wide array of domestic and international travel. Finally, students learn the basics of selling and marketing in tourism.

In the second half of the course, students are introduced to the profound changes taking place worldwide in the tourism industry. Students examine the environmental and socioeconomic impacts and interrelationships of tourism, as well as the transition to a greener tourism economy. They explore the ramifications of tourism development in terms of increased sustainability, profitability, and benefits to the surrounding communities, and they examine ecotourism as a model for sustainability.

Required for AOF Seniors.

SUNY SULLIVAN FINANCIAL ACCOUNTING (Business 1416)

Full year; 1 HS credit; 4 SUNY Sullivan credits

This course is designed to meet the needs of those students who are interested in pursuing a college business major. Emphasis is placed on the following topics: completion of the accounting cycle, receivables and temporary investments, inventories, plant and intangible assets, payroll, notes payable, other current liabilities, corporate stock and dividends, and financial statement preparation. There is a per-credit fee for this course. Financial Assistance is available.

Open to Seniors only. Prerequisite: AOF Accounting or instructor permission.

English Language Arts

In grades 9, 10, 11 and 12, English is taught at two levels: R and HP*
*All Honors Program (HP) students must maintain an average of 80.
Students must take at least one full credit of English each year in High School.

ENGLISH 9R

Full year; 1 HS credit

The 9th grade curriculum builds the foundations of reading, writing, vocabulary, and communication skills needed for successful completion of a sequence in English and as outlined in the SED Standards for English/Language Arts. Students will begin preparation for the English Regents (11th grade). Students will study major authors through a variety of genres and participate in oral discussions regarding the works. Written communication will include (but not be limited to) expository writing, report writing, and genre writing. Oral and written assessment, in addition to presentations, will be featured in this course. All students will be expected to complete writing for literary response and expression.

ENGLISH 9HP

Full year; 1 HS credit

The 9th grade curriculum builds the foundations of reading, writing, vocabulary, and communication skills needed for successful completion of a sequence in English and as outlined in the SED Standards for English/Language Arts. The 9th grade Honors Program (HP) is geared essentially to the above-average student who enjoys an academic challenge. Emphasis is placed on a whole language approach that combines thinking, reading, writing, presenting, listening, and speaking skills.

ENGLISH 10R

Full year; 1 HS credit

The 10th grade curriculum continues to build on the foundations begun in the 9th year English program. Additional emphasis will be given to writing and speaking as outlined in SED Standards for English/Language Arts. A greater emphasis will be placed on students' abilities to read, write, listen, and speak for critical analysis and evaluation. Oral and written presentations are requirements of this course. All students will be expected to complete writing of a critical nature.

ENGLISH 10HP

Full year: 1 HS credit

The 10th grade Honors Program (HP) is a continuation of 9HP and is geared to the above-average student who enjoys an academic challenge. Emphasis is placed on a whole language approach that combines thinking, reading, writing, presenting, listening, and speaking skills.

ENGLISH 11R

Full year; 1 HS credit

This course continues to build upon the foundations of English 9 and 10. There is more extensive literary analysis of a variety of genres. Students will study major authors in their literature experience. Preparation will be completed for students to master the work necessary for the English Regents and the extended task. Oral and written presentations are requirements of this course. The type of material will be determined by the teacher. All students will be expected to complete an extended task assignment.

ENGLISH 11HP:

AP ENGLISH LITERATURE AND COMPOSITION

Full year; 1 HS credit; possible AP credit

"An AP English Literature and Composition course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes as well as the smaller-scale elements, such as the use of figurative language, imagery, symbolism and tone" (apcentral.collegeboard.com). Through reading and writing across many genres, students will learn to increase their ability to synthesize and utilize information gathered during the year. Students will read many novels, plays, short stories, poems, and literary criticisms. Depending on the text, students will write papers, create group projects, create personal projects, present to the class, and prepare for the Regents. Students will take the AP exam in May and the Regents in June.

(HS credit 1; AP exam can earn 3 college credits)

The following courses are the 12th Grade English electives.

- Students must choose or select courses to <u>equal 1 credit</u> (or more) to meet their English 12 requirement.
- Students must take at least one full credit of English each year in High School.
- Students could be eligible to take senior electives earlier, however, students still need to take one full credit during their senior year as a graduation requirement.

CHILDREN'S LITERATURE

1/2 year: 1/2 HS credit

This course introduces students to classic children's literature as well as to modern children's literature,

authors, and illustrators. It concentrates on giving students a solid background in Children's Literature and teaching the appropriate ways to read and share such literature with children of all ages. Participants will have a laboratory feature which will include observed reading sessions with appropriately aged children.

Prerequisite: English 11

ENGLISH 12-C:

A Decades Look at Comics' Role in Popular Culture

1/2 year; 1/2 HS credit.

This half year course will begin by looking at the Depression era and pre-war roots of comics in the United States and trace the movement and our changes through the decades. Our study will look at historical parallels and perspectives, changes in artwork, mythological intersection in comics, and the social statements that comics have made. This class will explore the historical trending of comics over the decades and will culminate with an intensive look at the point of impact between popular culture and comic culture within our society over the past twenty-five years.

Prerequisite for English 12-C: English 11

ENGLISH 12-SR

1/2 year; 1/2 HS credit

This class uses cooperative learning as the focus while students engage in a variety of listening, writing, reading and oral communication tasks. Students will cooperatively analyze and evaluate experiences, ideas, information, and issues as they use reading, writing and comprehension strategies to problem solve based on different sets of criteria. This class requires students to peaceably interact with each other in order for them to complete assignments focused on building skills (negotiation, inference, compromise, comprehension, time management, analysis, focus) necessary for survival and success in the global economy.

Prerequisite for English 12-SR: English 11

ENGLISH 12 – SENIOR REGENTS

1/2 half year; 1/2 HS credit

The purpose of this class is to provide seniors who have not passed the English Regents with the opportunity to spend a half year revisiting skills and literature that will provide additional support for this major examination.

JOURNALISM

FULL YEAR: 1 HS credit

This sequence, offered over two semesters, introduces the role of print media in society and training in the basics of writing for newspapers and magazines. Reading assignments will cover the history, practice, and

ethics of journalism. Students will be taught the basic techniques of newsgathering and be required to write breaking news stories, interviews, feature stories and cover a variety of "beats", such as school board and town government, police, and high school sports. The basics of reporting and writing for publication will be covered during the first semester. Students will further develop their skills in writing in-depth news and feature stories during the second semester.

Prerequisite for Journalism I: English 11

PUBLIC SPEAKING

1/2 year; 1/2 HS credit

This course will expose students to the fundamentals of public speaking. The course concentrates on teaching the students how to determine what approach is the most effective in reaching the audience and how to deliver the prepared material most effectively. Students will learn the importance of preparation and organization in delivering a speech. Communication skills are stressed. Class participation is an important part of this class, therefore excellent attendance is expected.

SCIENCE FICTION

1/2 year; 1/2 HS credit

Students will study a variety of classic science fiction novels, short stories, movies, and television shows. Students will learn about the history of science fiction and explore ways in which science fiction relates to real scientific and historical events. We will also make sociological connections between the genre and our culture. A wide variety of techniques will be employed during the semester for assessment. Some of these include, but are not limited to, class discussion, writing assignments, presentations, and multi-media projects. Class participation is an important part of this class, therefore excellent attendance is expected.

Prerequisite for Science Fiction: English 11

SCREENWRITING

Full year; 1 HS credit

Screenwriting is a step-by-step course in which students will learn the fundamentals of screenwriting, including plot structure and story design. Students will learn how to understand and use literary and visual elements in their writing. Classic and contemporary screenplays will be read, and important films will be viewed, analyzed, and discussed critically. Students will be required to write and shoot 1-2 20 – 30-minute screenplays. Finished films will be shown in class and in a class sponsored film festival.

Prerequisite for Screenwriting: English 11

SHAKESPEARE

1/2 year; 1/2 HS credit

This survey course involves reading Shakespearean plays as well as exploring the ways in which these plays have been presented in other forms of media. The historical background of these plays will provide a framework to enhance understanding of the context in which William Shakespeare's plays were written. A wide variety of techniques will be employed during the semester for assessment. Some of these include, but are not limited to, class discussion, writing assignments, presentations, and multi-media projects. Class participation is an enormous part of this class, therefore excellent attendance is expected.

SPORTS LITERATURE

1/2 year; 1/2 HS credit

This course will examine the complexity, beauty and changing face of sport in America using multiple texts. Using sports literature and other media, the course will attempt to view the historical role of sport and develop in the students a greater sensitivity and understanding to the world of sport and to the philosophical and sociological relationship between that world and contemporary society.

WRITING: A CREATIVE WORKSHOP APPROACH

Full year; 1 HS credit

The goal of this course is to allow students to improve their writing skills while also learning basic computer skills. All assignments are completed during class time on the computer. Emphasis is placed in the editing process and on achieving a polished finished product. Students will learn how to use Microsoft Word and will develop an understanding of the general principles of word processing while working on a variety of creative writing projects. In addition, students will learn how to use drawing programs to create illustrations that will be integrated into the writing projects. Using computer programs such as Photoshop and Publisher, students will create a variety of publications, including newspapers and pamphlets, as well as create original products such as their own restaurant. Emphasis will be placed on page layout or the art of combining text and illustrations into a unified presentation. Typing ability is recommended but not required, though this is not a class that will teach typing skills. Excellent attendance is expected.

Prerequisite Writing: English 11

SUPA ENGLISH

Full year; 1 HS credit; 6 Syracuse University credits

This course is 2 semester courses; you must take both semesters. The courses are:

SUPA WRITING105

1/2 year; 1/2 HS credit; 3 Syracuse University credits

Writing 105 is offered through Syracuse University's Project Advance. This course pays particular attention to writing as a means of learning and as a way of encouraging active intellectual engagement. Learning how to write formal academic analysis and argument begins with learning how to think reflectively in various kinds of informal written modes, such as reading logs, class correspondences, and response papers. Classes are organized around topics of inquiry that become focal points for numerous reading and frequent

writing assignments. Students who successfully complete the course receive three (3) college credits from Syracuse – transferable to hundreds of colleges and universities. Prerequisite: recommendation by teacher, one semester, ½ credit. Students must enroll in both Writing 105 and English 141. There is a per credit fee for this and all Project Advance Courses.

SUPA ENGLISH 181

1/2 year; 1/2 HS credit; 3 Syracuse University credits

This course is offered through Syracuse University's Project Advance. Students who successfully complete the course receive three (3) college credits from Syracuse – transferable to hundreds of colleges and universities. The course focuses on reading and interpretation. Students read a variety of texts in order to discover how their reading of a text relies upon implicit understanding of signs that are not only culturally established, but also part of a system that operates through complex relationships. Students write frequently: informal papers, reading logs, reactions, and a specified number of longer formal papers drawing on material covered in the course. Prerequisite: recommendation by teacher, one semester, ½ credit. Students must enroll in both Writing 105 and this course. There is a per credit fee for this and all Project Advance Courses.

Family and Consumer Science

Grades 10 - 12

- Basic Food Preparation and Nutrition
- Global/Gourmet I
- Global/Gourmet II
- Child Development and Early Childhood Education
- Parenting
- Fashion
- Clothing Design and Creation

Grades 11-12

Independent Living

BASIC FOOD PREPERATION AND NUTRITION

Full year; 1 HS credit

This course is a basic beginner course in food preparation and nutrition. Students will have "hands on" opportunities to develop skills in food preparation, meal planning and organizing kitchen work areas. In addition, students will learn about career opportunities in the food service industry. Students will use typical kitchen equipment in this class. Students practice budgeting and also examine nutritional factors that affect health throughout the lifespan.

CHILD DEVELOPMENT AND EARLY CHILDHOOD EDUCATION

Full year: 1 HS credit

This full-year course covers the physical, emotional, intellectual, and social development of a child from infancy to school-age. Students will examine parenting skills, prenatal development, daily care, and guidance. Students will participate in a field experience during the 2nd semester. Students interested in a career in teaching, health care, or psychology are encouraged to enroll in this class.

GLOBAL/GOURMET FOODS I

1/2 year; 1/2 HS credit

A half-unit course in which students will explore a variety of culturally specific foods from the United States. Students will learn preparation techniques. Students will gain an understanding of cultural difference and the interdependence of regions in the United States as well as the ecological consequences of choices in the use of the environment and natural resources. Through the study of specific foods, current and future food careers will be explored.

Prerequisite: Basic Food Preparation and Nutrition

GLOBAL/GOURMET FOODS II

1/2 year; ½ HS credit

A half-unit course in which students will explore a variety of culturally specific international foods. Students will learn preparation techniques with an emphasis on food appearance and presentation. Students will gain an understanding of cultural difference, interdependence of regions and countries around the world. Through the study of specific foods, current and future food careers will be explored.

Prerequisite: Basic Food, Preparation, and Nutrition

PARENTING

1/2 year; 1/2 HS credit

This half-unit course will provide students with a broad foundation of the knowledge, skill, and attitudes necessary to promote quality growth and development of children and families in school, community, and workplace settings. Students will develop an understanding of the diversity of families and how diversity impacts parenting choices and outcomes. Students will have the opportunity to examine the wide variety of career paths in community and family services, and to identify the knowledge and skills necessary for success within the field.

FASHION

1/2 year; 1/2 HS credit

This half-unit course will introduce students to the fashion industry. Students will have multiple opportunities to identify the knowledge and skills necessary for success in the fashion industry and assess their suitability for a fashion career. Clothing history, culture, design principles, merchandising, and current issues will be explored.

SEWING

1/2 year; 1/2 HS credit

This half-unit course will be laboratory-based, offering students the opportunity to complete projects including handling special fabrics, creating a garment using a pattern and altering & repairing clothing. Students will become proficient in sewing machine operation and hand stitching.

INDEPENDENT LIVING

1/2 year; 1/2 HS credit

The Independent Living course is designed to prepare students for the realities and responsibilities of managing all aspects of adulthood: education, career, interpersonal relationships, civic involvement, and financial security. Students will need the ability to make knowledge-based decisions as they learn to navigate the demands of the 21st century. Defining one's lifestyle goals and developing a plan to attain them is the core of this course.

Mathematics

FOUNDATIONS OF ALGEBRA

Full year; 1 HS credit

Foundations of Algebra is intended for those who have historically struggled with mastering arithmetic computation which is necessary before moving into algebra. Students will not be allowed to use the calculator throughout majority of this course to ensure mastery without dependence. Students will be given the time to explore and master addition, subtraction, multiplication, and division mixed with integers, fractions, and decimals. To prepare students for Algebra 1, the focus of the units is on fluency with mathematical facts and basic procedures. As the students make progress the basics of factoring, solving equations and graphing lines will be introduced.

ALGEBRA 1 WITH LAB

Full year; 1 HS credit

Note: This course is a graduation requirement.

This is the first course in the high school math sequence with a Regents exam in June. This class incorporates a mathematics instructional lab to provide additional support for students to meet the increased rigor of this course. The primary focus of this course is to build a solid foundation in the skills of algebra and problem-solving techniques. Students will also gain skills in writing mathematically to model real-life applications of mathematics. The main topics of this course include working with number systems and their associated operations, working with algebraic symbols and their usefulness in problem solving, working with the mathematical processes and their associated patterns, working with coordinate geometry for analyzing problem-solving situations, working with data and its organization into different display methods for analysis, working with probability to determine the likelihood of events. A TI-NSpire graphing calculator and computer software programs are integral components of the course. Students will receive one credit for successful completion of this course.

ALGEBRA 1A

Full year; 1 HS credit

This course, aligned with the Common Core Learning Standards, is the first year of a two year program, which is designed for students who need to build a foundation for Algebra 1. Placement may be determined by scoring a Level 1 or Level 2 on the 8th grade math state assessment or by teacher recommendation. A slower pace will allow in-depth exposure to the topic units and prepare students to take the more rigorous, second half of the course, Algebra 1B. Approximately half of the units of Algebra 1 will be covered. There will be a department final exam during finals in June.

ALGEBRA 1B

Full year; 1 HS credit

This course continues the topics from the Algebra 1A course towards taking the Algebra 1 Regents in June. Algebra skills are reviewed and strengthened through problem solving and real-world problems. Students will take the Algebra 1 Regents exam in June.

Prerequisite: Successful completion of Algebra 1A

INTERMEDIATE GEOMETRY

Full year; 1 HS credit

Intermediate Geometry is a one-year, non-regent, Geometry course that is a standards-based, Euclidean geometry course which meets the criteria for the state's geometry curriculum. This course explores the basic topics of geometry including plane and solid figures, coordinate geometry, reasoning and constructing arguments. The major difference between Intermediate Geometry and Regents Geometry is the amount of formal proofs that are written in this curriculum. There are more hands-on activities and more real-life geometry problems versus abstract problem solving. Students will receive one credit for successful completion of this course.

Recommendation: Final Algebra 1 grade of 65-70.

Prerequisite: Successful completion of Algebra 1 Course and successful completion of the Regents Exam.

GEOMETRY

Full year; 1 HS credit

Geometry is the second course in the advanced regents diploma sequence. This is a one-year, in-depth and challenging Geometry course with a Regents exam in June. Students will identify and justify geometric relationships, formally and informally. Students will be expected to learn geometric definitions, properties, and axioms in order to prove and/or disprove Euclidean, coordinate, inequality, and indirect theorems/proofs. Students receive one math credit for successfully completing this course.

Prerequisite: Successful completion of Algebra 1 and the Algebra 1 Regents exam. Final Algebra 1 grade of 80 or higher.

GEOMETRY WITH LAB

Full year; 1 HS credit

Geometry with Lab is the second course in the advanced regents diploma sequence. This is a one-year, indepth and challenging Geometry course with a Regents exam in June. The class incorporates a mathematics instructional lab to provide additional support for students to meet the increased rigor of this course. Students will identify and justify geometric relationships, formally and informally. Students will be expected to learn geometric definitions, properties, and axioms in order to prove and/or disprove Euclidean, coordinate, inequality, and indirect theorems/proofs. Students receive one math credit for successfully completing this course.

Prerequisite: Successful completion of the Algebra 1 course and the Algebra 1 Regents exam. Final Algebra 1 grade of 70 or higher.

ALGEBRA 2/SCCC INTERMEDIATE ALGEBRA

Full year; 1 HS credit, 3 SCCC credits

Algebra 2 and Trigonometry is the third course in the three year advanced regents diploma sequence for mathematics and is a must course for students who have their sights set on attending college. This course will help you understand how mathematics relates to the world using real-life application problems and prepares students for advanced study. The scope and content of this course includes: equations and inequalities, relations and functions, trigonometric functions, logarithms, exponential and quadratic functions, statistics and probability. This course will help prepare students for the Algebra 2 and Trigonometry Regents exam in June as well as the next level of mathematics. Students receive one math credit for successfully completing this course.

Prerequisite: Successful completion of Geometry course and passing grade on the Geometry Regents exam. Algebra and Geometry final grade of 75 or higher or successful completion of College Algebra.

ALGEBRA 2 WITH LAB/SCCC INTERMEDIATE ALGEBRA

Full year; 1 HS credit, 3 SCCC credits

Algebra 2 and Trigonometry is the third course in the three year advanced regents diploma sequence for mathematics and is a must course for students who have their sights set on attending college. The class incorporates a mathematics instructional lab to provide additional support for students to meet the increased rigor of this course. This course will help you understand how mathematics relates to the world using real-life application problems and prepares students for advanced study. The scope and content of this course includes: equations and inequalities, relations and functions, trigonometric functions, logarithms, exponential and quadratic functions, statistics and probability. This course will help prepare students for the Algebra 2 and Trigonometry Regents exam in June as well as the next level of mathematics. Students receive one math credit for successfully completing this course.

Prerequisite: Successful completion of Geometry course and passing grade on the Geometry Regents exam. Algebra and Geometry final grade of 70 or higher or successful completion of College Algebra.

COLLEGE ALGEBRA

Full year; 1 HS credit

This course is a non-Regents course for those students who have completed Geometry. Topics of this course prepare students for a college level algebra course. It includes applications of rational expressions, exponential functions, logarithmic functions, and trigonometric functions. Further study of systems and polynomials are also included. If time allows, additional topics may include sequence and series and trig graphing. Students receive one math credit for successfully completing this course.

Prerequisite: Successful completion of Regents Geometry.

COLLEGE PREP MATH

Full year; 1 HS credit

This course is designed for seniors only who have not successfully completed Geometry course. The College Prep Math course will improve arithmetic skills without use of the calculator while covering topics from Algebra and Geometry. The class requires students to problem solve, interpret statistical data and graphs, apply geometric and study linear and quadratic equations. Students receive one high school math credit for successfully completing this course. Also, students who have a final average of 75 or above may meet the entrance criteria into the SCCC's BUS 1101 and MAT 1000 courses.

MONEY MATTERS

Full year; 1 HS credit

Students will learn how math is used in the business world and how it is applied in a variety of business careers and in one's personal life. Math concepts will be learned and applied in the following areas: Budgeting, Payroll, Banking, Investing, Real Estate, Buying a Car, Credit, Purchasing and Pricing Merchandise, and Retirement Planning. This course is designed to prepare students for both college level business programs and to understand the complex financial world they will encounter during their lives. For students in grades 9-12 this course may satisfy one unit of math credit ONLY if the student has successfully passed the necessary Math regents.

COLLEGE LEVEL MATH COURSES

SCCC PRE-CALCULUS (MAT1206)/Pre-calculus (Local)

Full year: 1 HS credit, 4 SCCC credits

This Sullivan County Community College course in which students will receive 4-college credits and 1 unit of high school math. This course is intended to form a bridge between the static concepts of algebra and geometry and the dynamic concepts of the calculus. Topics include basic algebraic, trigonometric,

exponential, and logarithmic functions; functional inverses; inequalities; graphs; complex numbers; systems of equations; introductory matrix algebra; and the binomial theorem.

*There is a per credit fee for students intending to use this course to earn college credit.

Prerequisite: Successful completion of Algebra 2 and Trigonometry and the Algebra 2 and Trigonometry Regents exam.

SCCC Calculus (MAT1301)

Full year; 1 HS credit, 4 SCCC Credits

This Sullivan County Community College course challenges the talented mathematical student to work to their full potential. Calculus is a college level course. This course is offered for the students in the accelerated program or any student who has successfully completed Precalculus. The course includes an in-depth study of limits, differential calculus and its applications, and integral calculus with its applications. Students who earn good grades in this course can receive college credit or placement from most colleges *There is a per credit fee for students intending to use this course to earn college credit.

Prerequisite: Successful completion of Precalculus.

SCCC ELEMENTARY STATISTICS (MAT2501)

Full year; 1 HS credit, 3 SCCC Credits

This Sullivan County Community College course in which students will receive

3-college credits and 1 unit of high school math. The course is designed to show students how statistics is used to picture and describe the world and to show them that statistics is used to make informed decisions. Topics include probability, frequency distribution, mean and standard deviation, binomial distribution, testing hypothesis, samples from a finite population, regression and correlation. The course may be taken in conjunction with Precalculus or Calculus.

Prerequisite: Successful completion of Algebra 2 and Trigonometry.

INTRODUCTION TO COMPUTER SCIENCE

Full Year; 1 HS credit

This course is for students who have successfully completed the Algebra I course and Regents Exam. It is also the foundation course for the Information Technology Journey.

The course is designed to expose students to the interdisciplinary nature of computer science in today's dynamic and globally connected society. Students will have the opportunity to explore the use of computer science as a tool in creating effective solutions to complex contemporary problems. The hands-on nature of the course is intended to provide students with the opportunity to explore conceptual understanding in a practical learning environment The course is recommended for all students as it provides an overview of computer science and its applications in various disciplines, professions, and personal activities. The course will provide opportunities for students to use computational thinking and develop algorithmic solutions to real-world problems. They will begin to understand the different levels of complexity in problem solving and determine when team projects might generate more effective problem solutions than individual efforts. Students will learn and use programming language(s) and related tools, as well as appropriate collaboration tools, computing devices and networking environment. Finally, they will demonstrate an understanding of the social and ethical implications of their work and exhibit appropriate communication when working as a team member. This course is an elective.

Pre-requisite: Successful completion of the Algebra I Course and Regents Exam

COMPUTER GAMING

1/2 Year; 1/2 HS credit

Stop playing and start creating! Monticello High School is going to transform the high school computer class by offering students the opportunity to learn how modern games are created. This course will demystify the process and make programming easy. It is an introductory course in game making which will give students the basic understanding necessary to break into the gaming world. It prepares you for AP Java. It will apply concepts as seen in the programming language Alice, as well as incorporate Java.

Pre-requisite: Successful completion of the Algebra I Course and Regents Exam and Introduction to Computer Science. For the IT Journey, there is an additional requirement of Introduction to Game History.

21ST COMPUTER LITERACY

Semester course, 1/2 HS credit

Use of computing devices grows daily. Computer scientists develop hardware, software, and other applications for use by the military, businesses, and average consumers. Being equipped for the future requires knowledge of computing. Through this course you will learn the fundamentals of computing and computer science from using the computer for everyday tasks through making an app. This course is designed for students to meet New York State's Computer Science and Digital Learning standards required for New York State high school graduation.

CYBERSECURITY

Full year, 1 HS credit

The course Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked. In Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely in this fast-growing, high-paying industry.

C++

1/2 Year; 1/2 HS credit

In this introductory course, students learn basic programming and coding concepts through a series of hands-on projects. They also learn about software development careers, the software development process, and industry best practices. Using a variety of tools, including Microsoft Visual C++, students master the building blocks of programming, functions, variables, loops, arrays, and classes.

Pre-requisite: Introduction to Computer Science

JAVA

1/2 Year: 1/2 HS credit

This introductory-level one-semester course is designed for people who have little programming experience, In Java Programming, students gain an understanding of Java platforms and learn how to build standalone applications. Students also learn techniques of Java and how Java can be used in cross-platform computing. At the end of the course, students are able to write basic programs in Java and are prepared for further instruction in any programming language.

Pre-requisite: Introduction to Computer Science and C++ Programming

INTRODUCTION TO THE GAME INDUSTRY

1/2 year: 1/2 credit

Video games are an increasingly important medium in terms of national use, cultural impact, and profitability. Digital gaming sales hit a record 61 billion in 2015. With a rapidly growing base of mainstream users, games are a medium that needs to be examined. However, this industry, its history, and the cultural practices it engenders have been seriously neglected in comparison to television and other media. This course has been designed as a broad introduction to the medium and history of video games and the industry. It draws from a wide variety of disciplines to examine video games as aesthetic products, cultural products, economic outputs, as a policy issue, as possible sources of effects and sites of community.

AP COMPUTER SCIENCE A

Full year: 1 HS credit

The AP Computer Science A course emphasizes problem solving, algorithm development, and elementary data structures. It is also the next course to follow Java Programming. Students who complete the course and score well on the AP exam may qualify for on-semester of college credit at institutions that accept it.

Prerequisite: Java Programming or permission of instructor

AP COMPUTER SCIENCE PRINCIPLES

Full year; 1 HS credit

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. AP Computer Science Principles is designed with the goal of creating leaders in computer science fields and attracting and engaging those who are traditionally underrepresented with essential computing tools and multidisciplinary opportunities. Students who complete the course and score well on the AP exam may qualify for one-semester of college credit at institutions that accept it. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career.

Prerequisite: Introduction to Computer Science

Sciences

Science Regents Courses

Courses requiring a NYS Regents Examination and successful completion of lab requirements.

REGENTS LIVING ENVIRONMENT

Full year; 1 HS credit

This course studies the unity and diversity among living things, homeostasis in organisms, human anatomy and physiology, reproduction and development, genetic continuity, evolution, organisms in their environment and human impact on ecosystems. The Living Environment Regents curriculum and standards are adhered to throughout this course. Students are required to complete a minimum of 1200 minutes of successful hands-on laboratory skills, including four NY State required laboratories. A Regents examination is required following the completion of the lab requirement.

REGENTS EARTH SCIENCE

Full year; 1 HS credit

This course follows the New York State Regents curriculum and standards for Earth Science—The Physical Setting. Topics include minerals, rocks, earth's motion, dimensions and history, earthquakes, oceanography, astronomy, meteorology, the water cycle and climates, atmospheric energy, landscape development and environmental change, deposition, weathering, and erosion. Students are required to complete a minimum of 1200 minutes of successful hands-on laboratory skills. A Regents examination and Lab Practical are required following the completion of the lab requirement.

REGENTS CHEMISTRY

Full year: 1 HS credit

The course content includes the fundamental laws and principals of chemical structure and reactivity. Specific areas of focus are equilibrium, acids and bases, chemical kinetics, electrochemistry and introductory organic chemistry. Students are required to complete a minimum of 1200 minutes of successful hands-on laboratory skills. They must take the New York State Physical Setting Chemistry Exam.

Prerequisite: Integrated Algebra

REGENTS PHYSICS

Full year; 1HS credit

Physics is the foundation of modern science and technology and is recommended for any college-bound student. The course only requires basic algebraic math skills. It is an essential course for any student planning to study engineering or the sciences. The course demonstrates the connection of physics to the everyday world, using Einstein's maxim "Physics is common sense refined". The course includes the study of energy and its transformations, mechanics, wave motion, electricity, magnetism, light, and nuclear physics. An emphasis is given to application of principles and Problems. A Regents examination is required following the completion of the lab requirement.

Prerequisite: Completion and passing of the Integrated Algebra Regents.

9TH GRAGE HONORS REGENTS PHYSICS

Full year; 1 HS credit

Physics is the foundation of modern science and technology and is recommended for any college-bound student. It is an essential course for any student planning to study engineering or the sciences. The course demonstrates the connection of physics to the everyday world, using Einstein's maxim "Physics is common sense refined". The course includes the study of energy and its transformations, mechanics, wave motion, electricity, magnetism, light, and nuclear physics. An emphasis is given to application of principles and problems. A Regents examination is required following the completion of the lab requirement.

Prerequisite: Completion and passing of the Integrated Algebra Regents plus recommendation of 8th grade team.

Science Pathway Courses – These courses do not require a NYS Regents exam.

PRACTICAL SCIENCE I & II

2 semesters; 1/2 credit each

Practical science will investigate the basic principles of earth science, physics, chemistry and biology and relate it to real world experiences. This course is a thematic approach to how the sciences impact our daily lives. It is inquiry-based with a lot of time spent in the laboratory. This course is not intended for students interested in a career in science, engineering, or medical fields.

Prerequisite: 1 unit of Math, Regents Living Environment and Earth Science

ANATOMY AND PHYSIOLOGY I & II

2 semesters: 1/2 credit each

Anatomy and Physiology is a two-semester course that guides the students along the journey from understanding the cellular and tissue levels of organization and throughout the various systems of the body which work together to maintain homeostasis. Students use drawing and interpreting full color illustrations to provide visual reinforcement of the major concepts. Art can help students create and keep mental pictures of the various systems. Special conditions such as diseases and disorders are noted throughout the curriculum. Semester 1 focuses on the chemical basis of life explaining the building blocks of cellular structures, metabolism, and the transport materials throughout the body.

Semester two is a journey through the various systems of the body. Each system sets the stage for explaining, in general terms, what each system does and the organs it contains.

Prerequisite: Regents Living Environment & Principles of Health Science; Suggested co-enrollment: Regents Chemistry or Regents Physics for 4 Core Sciences.

ALTERNATIVE ENERGY I

1/2 year; 1/2 HS credit

Students will explore various traditional and alternative energy sources. Laboratory activities include creating biofuels from fermentation processes, building hydroelectric generators, and creating hydrogen fuel from electrolysis. Students will be provided opportunities to experiment with solar vehicles and wind generation. This is science elective or can be used for credit in the Envision and Build Journey.

Prerequisite: Regents Living Environment

ALTERNATIVE ENERGY II

1/2 year; 1/2 HS credit

Projects in Alternative Energy II will be student driven and based on interest utilizing skills learned in Alternative Energy 1. Projects should demonstrate advanced skills and students will present their culminating project to an audience. This is science elective or can be used for credit in the Envision and Build Journey.

Prerequisite: Regents Living Environment and Alternative Energy I

PRINCIPLES OF HEALTH SCIENCE

Full year; 1 HS credit

This is a one-year non-regents foundational course for the Pre-Health Sciences Journey (not a senior elective). Students with an interest in a future in the medical/health fields will explore an overview of therapeutic, diagnostic, environmental and informational systems. Topics include career requirements, medical history, trends in financing healthcare, ethical and legal responsibilities, First Aid and CPR/AED. Students will prepare for work-based experiences.

Pre-requisite: Living Environment or co-enrollment with Living Environment.

MEDICAL INTERVENTIONS

Full year; 1 HS credit

This is a non-Regents STEM course that will study the life of a typical family. Students will evaluate various medical interventions that can be utilized in the prevention, diagnosis and treatment of disease. Gaining knowledge related to infection, cancer, immunology, gene therapy, surgery, pharmacology, prosthetics, and other medical devices. The central focus of the course is understanding how to maintain a constant healthy state of being.

Prerequisite: Principles of Health Science and Regents Living Environment; Suggested coenrollment with another Regents Science for 4 Core Sciences.

College Level Science Courses

SCCC CHEMISTRY FOR HEALTH SCIENCE

Full Year; 1 HS credit, 4 college credits

This class is perfect for any student that is trying to figure out whether they want to major in biology or chemistry after high school. It is also a pre-requisite for students interested in pursuing a career in respiratory therapy or nursing depending on where you will be studying. Students utilize an inquiry approach to the learning of chemical principles with examples and case studies taken from the health sciences. The material covered is divided into three parts: general chemistry, organic chemistry, and biochemistry with emphasis on the relevance of each to health professions. Experiments will illustrate basic concepts relevant to the allied health science fields including nursing, respiratory therapy, radiological

technology, etc. Hands-on activities will be assigned, and lab reports will be required to complete the assignments. Students who have not taken Regents Chemistry should expect to work extra hard to learn the material.

Prerequisite: Principles of Health Science and Regents Living Environment; Suggested co-enrollment with another Regents.

SUPA FORENSIC SCIENCE

Full year; 1 HS credit; 4 college credits each

Forensic Science focuses upon the application of scientific methods and techniques used to investigate crime. This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis placed upon techniques used in evaluating physical evidence. Laboratory exercises will include techniques commonly employed in forensic investigations.

Prerequisite: Must be a Junior; Successful completion of Regents Living Environment; Suggested completion of 2 core Regents courses.

SUPA CHEMISTRY I & II/ HONORS CHEMISTRY (CHE 106/107 and CHE 116/117)

2 semesters; 1/2 HS credit each; 4 college credits each

This course now allows accelerated science students to take SUPA Chemistry without taking Regents Chemistry as a pre-requisite. Students can take this course by getting a recommendation from their current science teacher as well as achieving mastery, (85+) on the regent's exam in their current science course. Students enrolled in the course will also take the Chemistry Regents as a post-assessment and the SUPA Final Exam. Get a fascinating and fundamental grasp of the underpinnings of reality (as we currently understand them!). You will investigate forms of energy atomic structure, quantum theory, periodic law, molecular geometry, properties of liquids and gases, and more. You will learn the concepts necessary for continued study in chemistry medicine biology engineering and physics. In the lab course (CHE 107), you will learn how to handle chemical and equipment safety and the correct procedures for manipulating and reporting data.

The second semester is a continuation of CHE 106/107, lectures and labs will more deeply explore the dynamic processes that make up the organic and inorganic world Topics include chemical reactions, chemical equilibrium, thermochemistry and thermodynamics, electrochemistry, voltaic cells, nuclear chemistry, organic chemistry, and polymers. The lab portion (CHE 117) feature qualitative analyses of topics such as equilibrium, pH, and solubility.

Pre-requisite: Must be a junior; Successful completion of Algebra and 2 science Regents courses.

SUPA MAJOR CONCEPTS IN PHYSICS/HONORS PHYSICS (non-Calculus based, PHY101/111 and PHY102/112)

2 semesters; 1/2 HS credit each; 4 college credits each

This course now allows accelerated science students to take SUPA Major Concepts in Physics without taking Regents Physics as a pre-requisite. Students can take this course by getting a recommendation from their current science teacher. They will take the Physics Regents as a post-assessment and the SUPA Final Exam. This course is primarily about the motions of objects and the forces which underlie these motions. The theory that describes the above phenomena was developed by Isaac Newton in the 17th century and is called "classical mechanics" which gave a foundation for the

development of all modern physics. Therefore, this course is an introduction to physics in general. Physics in turn provides a foundation for most other natural sciences and engineering. In Physics 102, you will learn about three great subject areas: electricity, magnetism, and light. Maxwell's equations, which you will explore in this course, relate all three. The Laboratory section provides hands-on intuition about general physics covered in the lecture courses while developing practical laboratory skills. Mini STEAM-driven modules will be incorporated for real-world connections when applicable.

Pre-requisite: Must be a Junior; Successful completion of Algebra and 2 science Regents courses.

SUPA PHYSICS I & II (Calculus based, PHY211/221 and PHY212/222)

2 semesters; 1/2 HS credit each; 4 college credits each

This course is primarily about motions of objects and forces, which underlie these motions. The theory that describes the above phenomena was developed by Isaac Newton in the 17th century and is called "classical mechanics" which gave a foundation for the development of all modern physics. Therefore, this course is an introduction to physics in general. Physics in turn provides a foundation for most other natural sciences and engineering. In Physics 212, you will learn about three great subject areas: electricity, magnetism, and light. Maxwell's equations, which you will explore in this course, relate all three. The Laboratory section provides hands on intuition about general physics covered in the lecture courses while developing practical laboratory skills. Mini STEAM driven modules will be incorporated for real-world connections when applicable.

Pre-Requisite: Must be a junior; Successful completion of 2 science Regents courses.

Co-Requisite: Must be dual enrolled in Calculus

Social Studies

In grades 9 and 10 Social Studies is taught at two levels: Regents and Honors

In Grades 11 and 12, the Honors level courses are dual enrollment college courses offered through Syracuse University Project Advance. All Honors Program (HP/CIC) students must maintain an 80 average. Four (4) years of Social Studies are required for graduation. Electives do not count towards the four-year requirement.

SOCIAL STUDIES 9 GLOBAL HISTORY AND GEOGRAPHY I

Full year; 1 HS credit; 0 college credits

Grade 9 begins with the Paleolithic Era and the development of the first civilizations, continues with an examination of classical societies, and traces the expansion of trade networks and their global impact. The course emphasizes the key themes of interactions over time, shifts in political power, and the role of belief systems. The first three Key Ideas review content from Grade 6 and will not require as much instructional time as other Key Ideas. Other Key Ideas may require additional instructional time such as Political Powers and Achievements, Transformation of Western Europe and Russia and Interactions and Disruptions. While the course emphasizes the importance of historical and spatial thinking, all of the social studies practices and standards are included in the study of global history and geography. May take at the Regents or Honors Level.

SOCIAL STUDIES 10 GLOBAL HISTORY AND GEOGRAPHY II

Full year; 1 HS credit; 0 college credits

Grade 10 provides a snapshot of the world circa 1750. The course continues chronologically up to the present. Several concepts are woven throughout the course including industrialization, nationalism, imperialism, conflict, technology, and the interconnectedness of the world. The last three Key Ideas focus on global issues, applying a more thematic approach. While the course emphasizes the importance of historical and spatial thinking, all of the social studies practices and standards are included in the study of global history and geography. Students in this course will be required to pass a Regents exam for graduation (Framework Exam). May take at the Regents or Honors Level.

Prerequisites: Global History and Geography I

SOCIAL STUDIES 11 UNITED STATES HISTORY AND GOVERNMENT

Full year; 1 HS credit; 0 college credits

Grade 11 begins with the colonial and constitutional foundations of the United States and explores the government structure and functions written in the Constitution. The development of the nation and the political, social, and economic factors that led to the challenges our nation faced in the Civil War are addressed. Industrialization, urbanization, and the accompanying problems are examined, along with America's emergence as a world power, the two world wars of the 20th century, and the Cold War. Students explore the expansion of the federal government, the threat of terrorism, and the place of the United States in an increasingly globalized and interconnected world. Course is rooted in the new Framework for Social Studies. Students are required to pass the Regents Examination in United States History and Government for graduation. May take at Regents or SUPA levels (see below for SUPA US History description).

Prerequisites: Global History and Geography II

SUPA US HISTORY (SS11)

Full year; 1 HS credit; 6 Syracuse University credits (History 101 and History 102)

The 2 courses (one semester each) provide a survey of the development of the United States from the Colonial period to America's role in the post-Cold War world. Topics examined include Colonial America, the Age of Jackson, the Civil War and Reconstruction, Immigration, Industrialization and Urbanization, America as a world power, 20th century global conflicts, the Cold War, and America's role today. Fulfills the NYS requirement for US History and Government. Students will take the Regents exam at the end of the year which is a graduation requirement. Prerequisites: Global Studies 9, Global Studies 10, a score of 85% or better on the NYS Global Regents exam, and teacher recommendation.

There is a per-credit fee for this course.

Prerequisites: Global History and Geography II HP or Global History and Geography II with teacher recommendation; Grade level: 11, 12.

ECONOMICS

1/2 year; 1/2 HS credit; 0 college credits

Economics, the Enterprise System, and Finance" examines the principles of the United States free market economy in a global context. Students will examine their individual responsibility for managing their personal finances. Students will analyze the role of supply and demand in determining the prices individuals and businesses face in the product and factor markets, and the global nature of these markets. Students will study changes to the workforce in the United States, and the role of entrepreneurs in our economy, as well as the effects of globalization. Students will explore the challenges facing the United States free market economy in a global environment and various policy-making opportunities available to government to address these challenges. May take at Regents or SUPA levels (see below for SUPA Economics description).

Prerequisite: United States History and Government; Grade level: 11, 12

SUPA ECONOMICS

1/2 Year; 1/2 HS credit; 3 Syracuse University credits

SUPA Economics is a Syracuse University, three credit hour study of college level economic themes that both readies students for a further study of Micro and Macro Economics and satisfies the ½ credit graduation requirement for high school economics.

There is a per credit fee for this course.

Prerequisite: United States History and Government; Grade level: 11, 12

PARTICIPATION IN GOVERNMENT

1/2 year; 1/2 HS credit; 0 college credits

Participation in Government is a course designed to illustrate to students the importance of their role as citizens in a democracy. Participation in government and in our communities is fundamental to the success of American democracy. The point is for students to understand that they must become involved in their communities—being a good citizen is not merely voting. This course aims to provide students with opportunities to become engaged in the political process by acquiring the knowledge and practicing the skills necessary for active citizenship.

This course will also look at different issues and determine how good citizens make up their minds about policy issues. The overriding concept is the way in which we address social problems through development

of public policy. This course is project based with a significant amount of independent project work. Critical thinking skills will be emphasized. *This course serves as the Capstone Project for the Civics Seal.* May take at Regents or SUPA levels (see below for SUPA INTRODUCTION TO POLICY STUDIES description).

Prerequisite: United States History and Government; Grade level: 12

SUPA INTRODUCTION TO THE ANALYSIS OF POLICY STUDIES

1/2 year; 1/2 HS credit; 3 Syracuse University credits

SUPA PST 101 introduces students to the basic skills of public policy analysis. These skills include becoming willing and able to "do good" effectively, defining and identifying the components of public policy issues, communicating ideas and findings, collecting information, using graphs, tables and statistics, examining the use of surveys and informal interviews, identifying a social problem and coming up with a proposed policy to deal with it, listing costs and benefits of proposed policies, developing benchmarks to assess the impact of policy, analyzing political factors, developing strategies to implement a policy, identifying essential features of major current public policy issues and working in teams effectively. Students who successfully complete the course receive three (3) college credits from Syracuse University transferable to hundreds of colleges and universities. Satisfies the high school graduation requirement for Participation in Government. This course serves as the Capstone Project for the Civics Seal.

There is a per credit fee for this course.

Prerequisite: United States History and Government. Grade level: 12

SUPA FOUNDATIONS OF HUMAN BEHAVIOR (Elective)

1/2 year; 1/2 credit; 3 Syracuse University credits

SUPA Psychology is offered through Syracuse University's Project Advance. The course prepares students for intermediate and advanced college courses by demanding performance equivalent to on-campus introductory courses. Students who successfully complete the course, receive three (3) college credits from Syracuse – transferable to hundreds of colleges and universities. Topics covered will include the study of people who influenced the discipline, human behavior, learning, development, individual differences, and assessment of these areas with various class activities.

There is a per credit fee for this course. Grade Level: 11, 12 Prerequisite: Successful completion of Global Studies II

SUPA INTRODUCTION TO SOCIOLOGY (Elective)

1/2 year; 1/2 credit; 3 Syracuse University credits

SUPA Sociology is designed as an analytic, skills-based introduction to sociology. The emphasis is on analytic reading and conceptual analysis. It is a writing intensive course. As the course progresses, students should obtain increasing skill in analytic reading and writing, sociological reasoning, empirical investigation, and in the ability to make empirical and conceptual generalizations about self and society in an increasingly global world. This college-level course demands performance equivalent to the course offered on campus. Students who successfully complete the course receive three (3) college credits from Syracuse University transferable to hundreds of colleges and universities. This college-level course introduces C. Wright Mills' classic notion of "the sociological imagination" and the promise of sociology and encourages students to see and think about the relationship between themselves and the social world. This course will be offered in alternate school years.

There is a per credit fee for this course. Grade level: 11, 12, Prerequisite: Successful completion of Global Studies II

SUPA HUMAN DEVELOPMENT AND SPORT (Elective)

1/2 year; 1/2 HS credit; 3 Syracuse University credits

Human Development and Sport examine the dynamics of youth development, social change, and social inclusion in the context of sport. Students examine perspectives of youth development and principles of sport that facilitate personal, social, and cultural development. Students explore ways in which sport-for-development programs provide positive environments and opportunities for collaboration, social change, inclusion, and human enrichment. The connections of sport-based initiative to community, national, and global development issues are explored. This is a great elective for anyone interested in sports and/or pursuing an athletic career choice. This course will be offered in alternate school years. *There is a per credit fee for this course that will be subsidized by MCSD*.

There is a per credit fee for this course; Grade Level: 11, 12, Prerequisite: Successful completion of Global Studies II

SCCC HISTORY OF THE AFRICAN AMERICAN

1/2 year, 1/2 HS credit; 3 Sullivan County Community College credits

HIST 1224 introduces central themes that comprise the interdisciplinary subject of African American Studies. Also referred to as Africana Studies, African Diaspora Studies, or African and African American Studies, the field places the study of North Americans of African descent in a broader context that considers connections to the African continent and to other people of the African Diaspora. This framework enables students to explore common and divergent experiences and identities among varied Black populations.

There is a per credit fee for this course that will be subsidized by MCSD. Grade Level: 11, 12, Prerequisite: Successful completion of Global Studies II

HISTORY THROUGH FILM (ELECTIVE)

Full year, 1 HS credit, 0 college credits

One way to learn about the past is to study how it is portrayed through movies, artwork, and the music associated with its historical themes. In this course we will examine historical events by viewing films, listening to music, analyzing artwork, inter-active discussions of the historical context of each event, and reflective writing assignments. The humanities provide some factual information about an historical figure, event, or time period; they can also distort the past depending on the point of view of the producers of movies, art, and music. A major part of the course will be discussion of how major events of history are accurately and inaccurately portrayed through the arts. The study of an historical event through the humanities will focus students to develop an understanding about the times in which the materials were produced, so for each unit of study we will concentrate on two themes: what do the arts tell a modern viewer about a particular time period; and what do the arts tell us about the time in which it was made.

Grade level: 11, 12, Prerequisite: Successful completion of Global Studies II

MILITARY HISTORY (ELECTIVE)

Full year, 1 HS credit, 0 college credits

Military History is a full year elective course that explores warfare through the ages - from ancient times up through the worldwide clashes of the 20th century. A special emphasis is placed on the major impact of key personalities, technologies and strategies on the course of these key conflicts in human history. This elective is designed to build on and/or better prepare students for other general history courses they will take/participate in.

Grade level: 11, 12, *P*rerequisite: Successful completion of Global Studies II and has passed the Global Studies Regents with a score of 75 or higher.

Spanish/LOTE

SPANISH 1 (Checkpoint A: Beginner)

Grades 9 -12, full year, 1 credit

Students will develop basic proficiency skills in listening, speaking, reading, and writing in Spanish. They will be introduced to different Spanish-speaking cultures and compare these cultures with their own.

NOTE: New York State requires that all students earn one credit in Languages Other Than English (LOTE) in order to graduate High School. This course satisfies the LOTE requirement for high school graduation. Students who wish to continue to the next level of language study must pass this course with a minimum grade of 80%.

SPANISH 2

(Checkpoint B: Intermediate Part 1)

Grades 9 – 12, full year, 1 credit

Students will communicate (listen, speak, read, and write) in Spanish about situations in the past, present,

and future. They will increase their vocabulary continue to explore Spanish-speaking cultures.

Prerequisite: Pass the LOCAL SPANISH LANGUAGE PROFICIENCY EXAM OR pass Spanish 1 with a minimum grade of 80%.

SPANISH 3

(Checkpoint B: Intermediate Part 2) Grades 9 – 12, full year, 1 credit

This course is a continuation of Level 2 language study and completes the preparatory material for the COMPREHENSIVE EXAMINATION FOR REGENTS' CREDIT at Checkpoint B. Communication in the target language and knowledge of target cultures are the primary goals.

Prerequisite: Pass Level 2 LOTE.

SPANISH 3/4 NS: ADVANCED SPANISH FOR NATIVE SPEAKERS

(Checkpoint B/Checkpoint C: Intermediate Part 2/Advanced)

Grades 9 – 12, full year, 1 credit

This course is for native speakers of Spanish who read and write at an intermediate or advanced level. Students will expand their vocabulary and further develop their communication skills while exploring a variety of Latino cultures and dialects. Students who have not yet taken the COMPREHENSIVE EXAMINATION FOR REGENTS' CREDIT will take the exam in June.

Prerequisite: Middle School Spanish for Native Speakers OR recommendation of language teacher

SPANISH 4/5

(Checkpoint C: Advanced)

Grades 11 – 12, full year, 1 credit

In this advanced level language course students use advanced language skills to prepare for becoming part of today's multilingual world and global economy. Students enrolled in this course will work towards earning the New York State Seal of Biliteracy upon graduation. An alternating two-year curriculum is offered.

Prerequisite: Pass Level 3 LOTE, including the COMPREHENSIVE EXAMINATION FOR REGENTS' CREDIT

AP SPANISH LANGUAGE (Advanced)

Grades 11 – 12, full year, 1 credit

This rigorous course is a continuation of SPANISH 4/5. The class is conducted in Spanish and targeted to students who have complete four years or the equivalent of high school Spanish. Students review previous topics while practicing advanced grammatical concepts and further refining their abilities to speak, write and understand Spanish.

Students will take the College Board Spanish Language Advanced Placement exam in May. There is an additional fee for the AP exam.

Prerequisite: pass SPANISH 4 and 5 or equivalent AND recommendation of teacher

Technology

DESIGN AND DRAWING FOR PRODUCTION

Full year: 1 HS credit (Foundation Course for Envision and Build Journey).

DDP meets NYS Requirement for 1 credit in the Arts. Drawing and design encourages visual problem solving using common graphic language to describe forms in the human-made environment. It provides experiences for the student to develop analytical skills and problem solving with real-world experiences. It provides the developmental foundations required in the process of product design and production. Students will be issued some basic drawing tools, such as a compass that they will be responsible for the same they are for textbooks.

WOOD MANUFACTURING I

1/2 year; 1/2 HS credit

Students will design and construct individual projects using the principles of good design, sound construction and safety. Students will learn to operate power machinery and proper construction procedures. Emphasis will be on quality, craftsmanship, good work ethic, and proper use of tools.

Pre-Requisite: DDP or Studio in Art

WOOD MANUFACTURING II

1/2 Year; 1/2 HS credit

This course is a continuation of Wood Manufacturing I and will allow students to develop skills in the field of woodworking. It is project-based and student driven with a culminating project that should demonstrate advanced skills, such as different types of joints, surface preparation, and finishing techniques. Students will also explore various career opportunities available in construction and woodworking industries.

Pre-Requisites: DDP or Studio in Art, and Wood Manufacturing I

MANUFACTURING AND CONSTRUCTION

1/2 year; 1/2 HS credit

Manufacturing and production technology is a conscious exploration of the processes that take raw materials to finished goods Student teams take their designs from concept sketches to finished product while defining the systems structure of a manufacturing enterprise. Their manufacturing process activities will use CNC equipment; plastics mold design and rapid prototyping. Students explore construction systems including framing, HVAC, electrical plumbing and plot planning. Construction mathematics is emphasized using a transit n a laser level. In his unit students understand systems thinking and the integration of materials, labor, costs, and site management in every phase of the building.

Pre-Requisite: DDP or Studio in Art; Trigonometry or concurrent in Trigonometry or STEAM Math

STRUCTURAL ENGINEERING

1/2 Year; 1/2 HS credit

Structural Engineering is a field of engineering dealing with studying systems in static equilibrium including the analysis and design of structures that support or resist loads (trusses and forces in application to bridges, building, and roller coasters are some examples). Structural engineers are involved in the design of building and other structures. Their design must satisfy given criteria, safety, serviceability, and performance. Accounting for weather physical laws and materials performance are just some of the structural engineer's considerations Projects will be student driven based on interest.

Pre-Requisite: DDP or Studio in Art, Trigonometry or concurrent in Trigonometry

DRIVER EDUCATION

1/2 year; ½ HS credit

This course is designed to develop proper attitudes that promote safe and courteous driving habits on our public roadways. Includes practical experience behind the wheel and classroom theory. Students must be 16 years of age by the start of the course. A New York State permit is not needed to begin the program but must be obtained shortly after the class begins.

Upon successful completion of the Driver Education Curriculum, students will receive a certificate (MV-285) that when submitted to DMV, changes their New York State license to a class "D" at age 17. This will grant students the privilege to legally drive after 9pm. The Pre-Licensing Course Certificate (MV-278) may also be issued to those students that need to schedule their road test.

Depending on the insurance company, students may receive a discount upon successful conclusion of the program.

HEALTH and PE

PHYSICAL EDUCATION

1/2 credit course offered for grades 9-12

Physical Education is a full school year commitment which every student is mandated to take and pass for four (4) years in high school by NYSED. A variety of electives are offered to allow students every opportunity to participate in activities of interest to them. Student growth will be measured using the FitnessGram PACER test and knowledge of activities taught throughout the year. The FitnessGram PACER test will be administered twice per year with permanent records kept. Missed classes must be made up to account for students' academic grade and all students are required to wear proper footwear for physical activity. Modifications to the original curriculum can be made to account for individual student needs.

HEALTH EDUCATION

1/2 credit course offered for grades 10-12

Health Education is a graduation requirement at Monticello High School. The goal of the Health & Wellness course is to empower students to develop requisite knowledge, skill, and attitude needed to develop and maintain lifelong health and wellness. Course topics include but are not limited to violence and mental wellness, personal safety, nutrition and personal health, pregnancy, HIV/AIDS and other STD's and Drug (legal and illegal) education.