

Saugerties High School

Course Description Guide 2022-2023

NEW YORK STATE GRADUATION REQUIREMENTS:

*In a Nutshell.....**

REGENTS DIPLOMA

REGENTS DIPLOMA WITH ADVANCED DESIGNATION

COURSE REQUIREMENTS:

(Both diplomas require a minimum of 22 credits, including 2 Phys. Ed. credits)

*4 Units of English Language Arts
4 Units of Social Studies
3 Units of Mathematics
3 Units of Science
1 Unit in the Arts
½ Unit of Health
2 Units of Phys. Ed.
1 Unit World Language
3.5 Units Elective*

*4 Units of English Language Arts
4 Units of Social Studies
3 Units of Mathematics
3 Units of Science
1 Unit in the Arts
½ Unit of Health
2 Units of Phys. Ed.
3 Units World Language
1.5 Units Elective*

MINIMUM REGENTS EXAM REQUIREMENTS:

*1 Comprehensive English
1 Global History & Geography
1 U.S. History & Government
1 Mathematics
1 Science

1 World Lang. Exam (Checkpoint A) ***

*1 Comprehensive English
1 Global History & Geography
1 U.S. History & Government
3 Mathematics
2 Science: Living Env. AND
E. Sci., Chem. or Physics

2 World Lang. Exams (Checkpoints A & B) ***

**Your counselor will review your specific graduation requirements with you at your scheduling meeting.*

***Regional Exams.*

DESCRIPTION OF SAUGERTIES HIGH SCHOOL COURSES

ART

STUDIO IN ART

Full Year – 1 credit
Grades 9-12

This is a comprehensive foundational course emphasizing introduction to the elements of art and principles of design. Students will create two and three dimensional artworks that will reinforce concepts taught in class. Various art media such as oil pastel, watercolor, acrylic paint, collage, mixed media and sculpture will be explored. Art Vocabulary will be introduced and reinforced through basic art criticism and art history.

STUDIO IN DESIGN

Full Year – 1 credit
Grades 10 -12

Prerequisite: Studio in Art

This course is a prerequisite for all advanced courses in art. It is designed for students who are interested in pursuing a career in the arts and/or students who would like to make the arts an integral part of their everyday lives. Projects will continue with concepts and techniques introduced in Studio Art, but at an advanced level. Both two dimensional and three dimensional work will be covered. Two dimensional work will include painting, printmaking and observational drawing. Three -dimensional work will include clay, assemblage and paper mache'. Emphasis will be placed on concept and skill development.

DRAWING AND PAINTING

Full Year– 1 credit
Grades 11 -12

Prerequisite: Studio in Art & Studio in Design

Drawing Painting is an advanced course for students who want to develop their skills specifically in two dimensional work. Emphasis will be on observational, imaginative and expressive techniques in both drawing and painting with a variety of mediums. Students will be exposed to contemporary and historical artists and art movements as they pertain to project work.

A sketchbook may be required for assignments, ideas and notes.

ADVANCED STUDIO ART

Full Year – 1 credit
Grade 12

Prerequisite: Drawing and Painting

Students will be asked to work more independently developing their own ideas to given themes. While basic skills will be practiced, emphasis is placed on solutions to artistic problems, transitioning into and exploring more personal, stylized, or expressive artwork.

CERAMICS I

Full year, 1 credit
Grades 11-12

Prerequisite: Studio Art. Design preferred, but can be taken as a co-requisite.

Ceramics class introduces students to fundamental methods of forming clay. Emphasis is placed on skill development of the three basic hand building techniques: pinch pot, slab construction and coil construction as well as sculptural methods. Students will also have the opportunity to learn basic wheel throwing techniques. The goal is to create decorative, sculptural and functional ceramic pieces with attention to craftsmanship. The terminology and definitions of materials and ceramic processes as well as ceramic art history will be an integral part of the curriculum. Class is limited to 15 students.

CERAMICS II

Full year, 1 credit

Grade 12

Prerequisite: Ceramics I

Ceramics II class is an in-depth study of the Ceramics art form. Extensive time will be devoted to developing concept-based designs and creations. A strong emphasis will be placed on individual approaches to design concepts. Students will be instructed in developing specific thematic direction for their work. In addition, a considerable amount of time will be devoted to developing wheel throwing skills. Public displays of completed work accompanied by descriptions of their design process/artistic vision will be a part of this class. This class requires serious individual dedication to developing ceramic skills and knowledge.

DIGITAL PHOTOGRAPHY

Half-year, ½ credit (fall semester)

Grades 10-12

Prerequisite: Studio in Art. Studio in Design preferred, but not required.

This course will help students become well-rounded in the fundamentals of digital photography. Four areas of instruction will be emphasized: how cameras work, how composition works, how lighting works and how to use photo-editing software. Students learn digital manipulation using Adobe Photoshop and other editing software to creatively alter digital images as well as analyze and critique. They will see what makes a successful photo and what does not.

DIGITAL ART & DESIGN

Half-year, ½ credit (spring semester)

Grades 10-12

Prerequisite: Studio in Art. Studio in Design preferred but not required.

Digital Art & Design is a half-year course where students will learn to create art digitally using programs such as Adobe Photoshop and Adobe Illustrator. This is a project based class where students will use photography, original sketches and digital drawing tablets to create original photo manipulations, illustrations and commercial art.

WOODSTOCK SCHOOL OF ART

½-1 credit (one full semester course is typically offered per year)

Pre-requisites: Studio in Art & Studio in Design

An advanced level course for art students.

Woodstock School of Art is offering a unique opportunity for recommended high school students to attend classes on a full scholarship and obtain high school credit. Art classes are typically held after school hours and students are responsible for their own transportation to the Woodstock School of Art. Students must also document their work in progress with pictures to submit for grading each quarter. See Mrs. Hayes for further details in room 16.

*This course does not necessarily run every semester.

BUSINESS/COMPUTER COURSES

PERSONAL TYPING/COMMUNICATIONS

One Semester - ½ credit

Grades 7-8

No Prerequisites

At the junior high level, this course emphasizes proper typing skills and correct grammar, capitalization, and punctuation using an on-line typing program, Microsoft Office, and Google Docs.

COLLEGE COMPUTERS

One Semester- ½ credit

Grades 9 – 12

No prerequisites

Students master Microsoft Word and Google Docs in creating business documents, including tables, flyers, newsletters, brochures, programs, etc. Students also use Microsoft Excel and Google Sheets to create spreadsheets for use in stock investment, calculating sports statistics and keeping business payroll and inventory. Microsoft PowerPoint and Google Slides are used to focus on professional presentation. Students also use online web creators to create websites for professional or personal use. The goal of College Computers is to make students the best they can be and to prepare them to advance to college. All coursework is project-based. It is the basis for all academic and professional communications and is recommended for all students.

BUSINESS & FINANCIAL MANAGEMENT

(Required for the 5 unit Business Sequence)

One Semester – ½ credit

Grades 9 – 12

No prerequisites

Students explore the world of personal finance and business, including money management, salary, investing and savings. Other topics covered are: purchasing your first car, buying insurance, getting your first apartment and saving for a house. We also explore the advantages and disadvantages of credit cards and how to avoid problems. This is an excellent course dealing with real world applications that every citizen will face during his/her life. Most coursework is project-based.

INTRODUCTION TO CAREERS

(Required for the 5 unit Business Sequence)

One Semester – ½ credit

Grades 9 -12

No prerequisites

This single semester workshop is designed to help students identify their dream career and provides the information they need to achieve it. Beginning with personality analysis and an interest survey, students explore career fields in which they will be satisfied and successful. They gather career information for the Bureau of Labor Statistics and College Board to find the right path to ensure their success. After extensive exposure to career fields, and based on their interests, they will conduct their own research about an area of interest to them. Finally, they will identify the specific steps they need to accomplish their career goal. Most coursework is project-based.

COLLEGE ACCOUNTING

Full Year –4 College Credits

Grades 11 – 12

No prerequisites

This course is a college level course whereby students may earn 4 credits through Ulster County Community College. It is the basis of all Business majors in college; one should take this course if he/she wants to pursue a 2-year or 4-year degree in Business Administration or Accounting. The course was designed in conjunction with members of UCCC to meet the college's standard. It is also transferrable to other institutions. An exploration of Assets, Liabilities, and Capital will be emphasized.

SPORTS & ENTERTAINMENT MARKETING

Full Year – 1 credit

Grades 10-12 (Freshmen: availability permitting)

No prerequisites.

Students take a step-by-step journey through the world of marketing, and learn about the key functions of marketing and how those functions are applied to sports and entertainment. Coursework is project-based, including marketing a coaching clinic, and a 'mystery item.' Ultimately, students will develop and run a sports franchise from scratch and apply marketing and management techniques to their sports team. Adobe software and online website creators are incorporated into coursework.

WEBSITE DESIGN

Full Year – 1 credit

Grades 10 – 12 (Freshmen: availability permitting)

No prerequisites

Students use state-of-the-art software to design and create websites. Beginning with HTML, students master the basics before moving on to point and click software. Among the Adobe software applications students will use are Dreamweaver, Animate, Illustrator and Photoshop. Business principles will be emphasized to create user friendly, attractive, interactive websites. All coursework is project-based, including personal sites and small businesses.

ADVANCED WEB DESIGN

One Semester – ½ credit

Grades 10 -12

Prerequisite: Website Design

Using industry standard software, students will produce clear and precise presentations. Web page and website creation will guarantee the student will understand the analysis, design and implementation of business related web page applications.

BROADCAST JOURNALISM

Full Year- 1 credit

Grades 11-12

Prerequisite: CVP I

Students will develop professional and business skills essential for competence in electronic news writing, podcasting, editing and production for the web and for broadcast. They will study business issues and problems in news, learn interviewing skills, use of electronic equipment and presentation skills. Students will also combine their knowledge of concepts and skills to produce professional-quality newscasts and webcasts and a monthly news magazine. During the course, students work in a variety of roles such as reporter, director, editor and producer and will be the 'talent' appearing in the daily broadcast of the school-wide announcements and District-wide rebroadcast.

MARKETING: VIDEO PRODUCTION I (Formerly CVP I)

Full Year – 1 credit

Grades 10 – 12 (Freshmen: availability permitting)

No prerequisites

A class geared to a student's ability to be creative. This class encompasses production, editing and creation of video for business as well as personal use. Students will use video cameras, computers and video compilation software to generate creative video projects such as public service announcements, re-created scenes, SuperBowl commercials, music videos and short films. In addition to brainstorming, budgeting, accounting, and problem-solving, students develop organizational skills, time management and the understanding of the importance of working as a group to reach a common goal.

(Business Dept., Cont'd.)

MARKETING: VIDEO PRODUCTION II (Formerly CVP II)

Full year – 1 credit

Grades 10 – 12 (Freshmen: availability permitting)

Prerequisite: CVP I

Using techniques they mastered in MVP1, students are placed in leadership roles as director/producer of creative or functional productions. They can create original content or organize the direction of school functions, such as sporting events, band and chorus concerts, or Saugerties Town Board Meetings.. All coursework is project-based, and students will advance their understanding of Adobe Premiere Pro, Photoshop and After Effects. Students will learn the importance of time management and personal responsibility.

PRINCIPLES OF ADVERTISING

Full Year - One Credit

Grades 10-12 (Freshmen: availability permitting)

No Prerequisites

(using Adobe Creative Cloud) - With the use of most of the Adobe Creative Cloud, students will utilize effective advertising techniques and develop advertising campaigns for sports teams, clubs, school clubs and events, and District endeavors. The students will get real-life, hands-on experience producing events, which will benefit the entire Saugerties Central School District.

SPORTS BROADCASTING AND EVENT PRODUCTION

Full Year - One Credit

Grades 11-12

Prerequisite: CVP I

With the Business Department's capability to live stream events (i.e, Board of Education meetings, theatre productions, sporting events, club events and activities, guest speakers, etc.) students will be responsible for all pre-production activities (site visit, planning, organizing participants, set-up) and then produce the events.

BUSINESS LAW

Full Year - One Credit

Grades 10-12 (Freshmen: availability permitting)

No Prerequisites

Students will gain a working knowledge of the legal framework within which formal business organizations must operate, and will develop a fundamental understanding of the legal framework of business and the basic principles of law that apply to business transactions. Students will gain an understanding of the application of legal principles in a business activity through text and case studies. Coursework covers the nature of law, courts and court procedures, crimes and torts, contracts, sales, and business ethics.

ENGLISH 9 R+

Full Year – 1 credit

Prerequisite: 8th grade English

This course offers an analysis of epic and Shakespearean literature as well as a closer view of language arts and writing techniques. It may include such literary works as Homer's *Odyssey* and Shakespeare's *Romeo and Juliet* and various works of fiction and poetry both classic and contemporary. Students in this class will hone their skills in writing for argument, using MLA citation, organizing ideas, supporting claims, analyzing author's technique and purpose, and writing their own creative pieces throughout. Alternative assessments will be used to enhance the curriculum; these include projects, presentations, and group work. A local final exam is required for this class.

ENGLISH 9 HONORS

Full Year – 1 credit

Prerequisite: 8th grade English plus teacher recommendation using rubric, essay test

This course is an in-depth analysis of the English language, writing techniques and more incisive studies of literary works and authors. Projects, reports and alternative methods of assessment will be used to enhance the curriculum. The course may include such literary works as Homer's *Odyssey*, Robert Cormier's *I Am the Cheese*. Enhanced titles: Catherine Hyde's *Pay it Forward*, Sherman Alexie's *The True Diary of a Part-Time Indian*, Daniel Keyes' *Flowers for Algernon*, and a variety of short stories. A local final exam will be administered.

Students nominated for placement in this class must meet a department standard for both writing and analytic mastery. An average grade of 92% is required to remain in this class.

ENGLISH 10 R+

Full Year – 1 credit

Prerequisite: English 9

This course fosters an appreciation of diverse literature both American and international. Critical thinking and writing skills will be refined through short projects as well as writing for argument. The literature includes a variety such as short stories, poems, essays, novels and plays. The selection of novels and plays may include *Animal Farm*, *Julius Caesar*, and *Speak*. Enhancement titles: *Tuesdays with Morrie*, *The Shawshank Redemption*. A local final exam is required for this class.

ENGLISH 10 HONORS

Full Year – 1 credit

Prerequisite: English 9 and teacher recommendation (Rubric and essay test required)

Focusing on a study of literary themes, students will develop an understanding that the theme of a work of literature is what relates literature to life, and that common themes recur across diverse works of literature. Students will read, interpret, and analyze informational material such as newspaper articles, editorials, and magazine and journal articles. They will also analyze themes and structure in fiction, including short stories, poetry, novels, and drama. Through extensive reading, students will acquire new vocabulary specific to the study of literature and apply that knowledge in writing. Literary works included in the program will be selected from, but not limited to, *Othello*, *Animal Farm*, *Night and Fahrenheit 451*. Additionally, vocabulary and grammar studies will be paired to complement the readings. Writing for argument is emphasized.

Students nominated for placement in this class must meet a department standard for both writing and analytic mastery. An average grade of 92% is required to remain in this class.

ENGLISH 11 R+

Full Year – 1 credit

Prerequisite: English 10

This course concentrates on essential elements of American literature. Thematic emphasis may include the individual's struggle against society and the importance of integrity. The literature covered may include: contemporary and classic short stories and poems, the novels *To Kill a Mockingbird*, *Into the Wild*, and the plays *The Crucible* and *Hamlet*. A research paper is required for this course. Research and citation of evidence is emphasized. Students will take the NYS English Language Arts Regents Exam in January.

AP ENGLISH LANGUAGE AND COMPOSITION/College English 101

Full Year – 1 credit

Grade 11

Prerequisite: English 10, teacher recommendation and writing assessment

AP Language/College English 101 combines the course of AP Language & Composition with the study of SUNY Ulster's College English 101. It emphasizes expository, analytical, and argument writing that forms the basis of academic and professional communication as well as the personal and reflective writing that fosters writing potential in any context. Students will write extensively in a variety of rhetorical modes and will study a wide variety of prose styles from many disciplines and historical periods. An extensive study of grammar will also be undertaken. There will also be an emphasis on preparing for the AP Language exam in May and the English Regents exam in January. A summer assignment is required in preparation for the course. College credit is potentially available. *This is a fee-based course (AP Exam and College fee). Fee reduction for both charges is available if students meet criteria for need.*

TWELFTH YEAR ENGLISH COURSES

AP ENGLISH LITERATURE AND COMPOSITION/College English 102

Full Year – 1 credit

Grade 12

Prerequisite: Successful completion of AP Language/College English 101

Co-Requisite: LIB 111

Advanced Placement English/College English 102 is a senior elective which may be used to fulfill the English requirement for the senior year. It is a dual enrolment course with SUNY Ulster's College English 102. To take this course, the student should be recommended by the English 11 teacher, although a highly motivated student who loves literature will also be considered. The class is highly participatory with extensive discussion and frequent writing. The AP exam is administered in early May by the College Board, and upon successful completion of this exam, the student may receive additional college credit. A research paper is required. To prepare for this exam there is a summer reading list, an intensive study of various poems, novels, and plays along with some shorter prose selections such as short stories and essays. A research paper is required as is extensive information literacy instruction provided one day per week for the first semester by the Library Media Specialist.

This is a fee-based course. Fee reduction is available based on need.

COLLEGE ENGLISH 101

Full Year- 1 credit

Prerequisite: Successful completion of English 11

This course is offered through SUNY Ulster as part of their Collegian program and is the equivalent of a first year college English course. It focuses on writing collegiate level expository essays in a variety of rhetorical modes including narrative, descriptive, comparison-contrast, cause and effect and argumentation. It also places a special emphasis on using grammar effectively and appropriately. As a discussion based class, a variety of interesting selections will be chosen which demystify the process of reading and writing in a variety of styles. The class culminates in a final exam which is evaluated by a panel of instructors from SUNY Ulster. A passing grade of "C" or better will receive college credit.

COLLEGE ENGLISH 102

Full Year, 1 Credit

Prerequisite: Completion of College English 101 with a grade of C or better.

Co-Requisite: LIB 111

This course is offered through SUNY Ulster as part of their Collegian program. Students read and discuss literature that explores the human condition and its moral dilemmas, social problems, and values. This course continues to stress the development of writing skills, with emphasis on criticism, analysis, research methods, and documentation. A research paper is required as is extensive information literacy instruction provided one day per week for the first semester by the Library Media Specialist.

MEDIA STUDIES

One Semester – ½ credit

Grade 12

Media Studies is a course designed to allow you, the students, to explore and study the most persuasive influence in their daily lives. The course will attempt to clarify how media works and how it forms our values and perceptions of ourselves and the world. Most importantly, the course will give you the opportunity to view media with a critical perspective

In this course, students will acquire formal vocabularies and methods for the critical analysis of media of the moving image. Television and cinema of the twentieth century will provide our formal and historical baseline for approaching film and media studies more generally- including investigations of television and digital media.

Accordingly, our primary focus will be on elements of cinematography, editing, sound, narration, and genre as they were articulated in independent and mainstream media of the twentieth century. However, we will also look at experimental and non-fictional forms of filmmaking, and we will strive to be aware of the historical emergence and development of the formal techniques, cultural determinants, and social settings that have shaped experiences of the cinema and television throughout its early, classical, post-classical, and contemporary eras.

ENGLISH 12R A & B

One Semester – Each course is ½ credit

Grade 12

English 12 covers a variety of reading, writing, speaking and listening activities. The literature covered includes short stories, novels, plays and poetry. Each of the literature units is discussed in terms of theme and style. Vocabulary and language work come from literature studies. In the area of writing, errors in sentence structure and usage are examined. The composition units studied include developing a thesis statement which helps students prepare for college. Students preparing for employment have the opportunity to work on presenting ideas and applying writing study to business letters and business communication. A unit in the course includes creative writing. Students have the opportunity to give oral presentations which adds to their ability to speak and communicate effectively.

ACTING WORKSHOP

One Semester – ½ credit

Grade 12

All students will be introduced to varied performance and acting strategies as well as theatre terminology in proper context. This course is highly interactive and hands-on, and students will be out of their seats performing regularly. Every participant will have the opportunity to reflect on their personal growth as well as that of the entire class as a whole through writing, reading and discussion. The course will culminate in a performance of a one-act play.

CREATIVE WRITING

One Semester – ½ credit

Grades 11 or 12

This class is a *workshop* in Creative Writing. This means that time will be spent writing and discussing work (both our own pieces and published works) of various genres and styles. Students will participate in weekly writing exercises that are meant to free the mind and get them thinking “outside the box.” Long term assignments include short stories, poetry, letters, science fiction/fantasy, personal writing and journalism. Throughout this course, students will grow as writers by exploring new territories and taking chances. This is a class that is offered to upperclassmen for a reason- it involves a great deal of self-discipline and motivation; please make sure that you are willing to put forth 100% effort before you venture into this workshop. Students will share their writing and critique peers’ writing as well as improve revision and editing skills. By the end of the course, students will have built a writing portfolio.

COMMUNICATIONS

One Semester – ½ credit

Grade 12

This course has been designed to introduce the student to both communication theory and to offer him/her the opportunity to develop communication skills through practical applications with the emphasis on development of practical everyday skills. In addition to this, we learn about the role of communication in our lives. We will develop speaking and listening skills that will help you in school, in your everyday lives and in your future lives as employees and citizens. Activities emphasize the student as speaker – building responsibility and confidence, listening, non-verbal communication, interpersonal communication, interviewing and group discussion, research, organization, reasoning, effective language and delivery, informative, persuasive and extemporaneous speaking plus oral interpretation and speaking for special occasions, supporting your views, debate, and parliamentary procedure and leadership roles.

WISE ENGLISH (In conjunction with WISE Economics OR WISE Government)

One semester- ½ credit

Grade 12

This course is designed to produce written work, research and presentation skills that express the student's overall experience within the program. Students seeking English credit through this program are required to keep a daily journal (60-65 entries), create a typed annotated bibliography from a variety of sources (i.e., books, internet searches, articles, etc.), conduct 3-5 interviews, and showcase their journey with a final presentation in May.

New York State Seal of Biliteracy (NYSSB) can be pursued during the college level courses (4 or 5) of either World Language, Spanish or French. Successful completion of the NYS Seal criteria in both English and one or more World Languages enables a graduate to be considered literate in English and 2 or more world languages, receive a NYS Seal on their HS diploma and wear a NYS Seal medallion at graduation. More information regarding the NYS Seal of Biliteracy can be found on the following website. <http://www.nysed.gov/world-languages/new-york-state-seal-biliteracy-nyssb>

FRENCH/SPANISH 1A

Full Year- Non credit-bearing
Grades 8 (9 -12)
No prerequisite

For most 8th grade students, Level 1A begins a two-year course of study to achieve Checkpoint A proficiency. The majority of 8th grade students are enrolled in Spanish/French 1A, a full-year course that is the first half of Level 1. A departmental exam is administered at the end of Spanish/French 1A. This beginning course develops "Checkpoint A" proficiency in a Language Other Than English (LOTE). Students utilize vocabulary and grammar to convey messages to each other regarding topics such as friendship, school, sports, leisure activities, food, family and clothing. Pronunciation is reinforced through repetition and meaningful communication. Students also study other cultures in relation to their own and observe those cultures to discover meanings underlying cultural practices or behaviors.

FRENCH/SPANISH 1B

Full Year – 1 credit
Grade 9 (8 – 12)
Prerequisite: French/Spanish 1A

This full-year course is for students in 9th grade to continue the second half of our level I course in French/Spanish 1B. The Checkpoint A examination (a regional second language proficiency Exam) is administered at the end of these courses. Successful students attain Checkpoint A proficiency credit for N.Y.State graduation requirements and receive one high school credit for the two years of study by passing both the course and exam. Checkpoint A Proficiency in LOTE is the minimum requirement for graduation from any N.Y. State high school.

FRENCH/SPANISH I ACCELERATED

Full-year- 1 credit
Requisite: Grade 8 status (Can be taken in 9-12 as an additional LOTE course)

An accelerated group of 8th grade students will be selected to study French or Spanish 1 Acc., which covers the two-year curriculum of Spanish/French 1A and 1B in one year. This course will be open also to high school students who have already completed Checkpoint A LOTE proficiency in one language and who wish to begin study of a second foreign language. The students in the accelerated course must pass the Checkpoint A Exam in June and have a passing average in the course in order to demonstrate Checkpoint A proficiency *and to receive one high school credit for one year of study.*

SPANISH 1B ALT.

Full-year, 1 credit
Grade 9
Prerequisite: Spanish 1A

Spanish 9 Alt. is a project-based course intended for students who are not pursuing an Advanced N.Y. State Regents Diploma and/or who usually do not continue with language studies after success at Checkpoint A. Basic communication skills from Spanish 1A are reinforced along with the vocabulary and structural elements of Spanish 1B topics. One high school credit/NYS Regents credit is awarded upon success with both course and exam. This is required for graduation from any NYS high school.

FRENCH II/SPANISH II

Full Year – 1 credit
Grades 9 -12
Prerequisite: Successful completion of Spanish/French 1 ACC, 1B and the Checkpoint A LOTE Proficiency Exam.

This course begins the development of Checkpoint B Proficiency in Languages Other Than English (LOTE), according to the N.Y.S. syllabus. The communicative skills of listening, speaking, reading and writing in the foreign language are emphasized through such topics as personal life, daily routines, shopping and celebrations. A departmental examination is given at the end of Level II.

(World Language Dept., Cont'd)

FRENCH III/SPANISH III

Full Year – 1 credit

Grades 10 – 12

Prerequisite: Successful completion of Spanish/French II.

Checkpoint B Proficiency in LOTE is further emphasized in this course. Communicative skills continue to be developed so that students are able to understand, speak, read and write in the foreign language at the Checkpoint B level assessed by Regional Checkpoint B Comprehensive Examination in June. Successful completion of this course and exam provides the students with the Regents credits needed to receive a Regents Diploma with Advanced Designation at graduation.

UNIVERSITY IN HIGH SCHOOL

FRENCH IV & FRENCH V

SPANISH IV & SPANISH V

Full Year – 1 credit & 4 college credits for each course

Grades 11 – 12

Prerequisite: Successful completion of Spanish/French 3 and Checkpoint B Examination. Students must have at least junior standing.

These courses are advanced level courses which correspond to the proficiency standards designated as Checkpoint C in the NYS Syllabus. These courses may be taken for 4 college credits each through the University in High School Program offered by SUNY Albany. These credits are offered at a highly reduced rate and offer students an opportunity to meet college foreign language requirements while still attending high school. Fluency in speaking and writing are two main objectives as well as increased cultural awareness through the use of literature, cinema and other primary sources. This is an excellent opportunity for students to receive intensive language practice as well as begin their college experience in a familiar setting. For more information you may contact the senior high school guidance department or visit the SUNY Albany website at www.albany.edu/uhs/.

SPANISH FOR NATIVE SPEAKERS I

Full Year- 1 credit

Prerequisite: Comprehension and fluency in the Spanish language is a must.

This course is an integrated language arts program designed to provide native Spanish speaking students with cognitive academic language proficiencies. Students develop the four language skills: Listening, Speaking, Reading and Writing (in Spanish) by participating in functional communicative activities which allow the skills to develop naturally within the context. Checkpoint exams may be administered in this course.

SPANISH FOR NATIVE SPEAKERS II

Full Year, 1 credit

Prerequisite: Spanish for Native Speakers I

This course is a continuation of our integrated language arts program designed to provide native Spanish-speaking students with cognitive academic language proficiencies. Students will continue to develop the four language skills: listening, speaking, reading and writing by participating in functional communicative activities which allow the skills to develop naturally within those contexts. Checkpoint exams may be administered in this course.

SPANISH FOR HERITAGE SPEAKERS

Full year, 1 credit

Grades 8-12

Placement by instructor

This course is designed for our Heritage Spanish language speakers. The needs of this population are distinct from those of Spanish language learners- our general population, and also from our Spanish Native Speakers/English Language Learners. Because these students already have strong listening and speaking skills in Spanish, this course will enable them to develop their language skills of reading and writing in their heritage language. Students will be able to take Checkpoint language exams dependent upon their age/grade to meet NYSED requirements for graduation. Checkpoint exams may be administered in this course.

FAMILY & CONSUMER SCIENCE

Information on the articulation agreement between Saugerties High School and S.U.N.Y. Cobleskill:

Any Saugerties High School student who takes ALL courses offered in the Family and Consumer Sciences Department and has an 85% average or higher in these courses, meets all graduation requirements, passes the Safe SERV test, and receives a written recommendation from the FACS teacher can receive the following: acceptance into S.U.N.Y. Cobleskill Culinary or Hospitality major and up to 8 college credits that will fulfill most of the first-semester courses in the Culinary major at S.U.N.Y. Cobleskill.

NUTRITION AND FOOD

One semester – ½ Credit

Grades 9 -12

A food class for all students that provides the basic skills needed for professional and personal life. The course teaches students the foundations of basic food preparation. It will help students develop an understanding of sound nutritional concepts through many hands-on experiences related to nutrition and food. Students will acquire and apply basic nutritional guidelines to their and others' diets. They will do a self-evaluation of their own diet and prepare a meal for someone with a special diet. Additionally, they will learn about eating disorders and how to recognize them. Students will prepare basic baked goods, soups, sauces, fruits, vegetables, grains, dairy foods, meats and fish. They will understand the kitchen equipment and utensils to prepare the food in various ways and practice good safety and sanitation practices used in the food industry.

CULTURAL FOODS

One semester – ½ Credit

Grades 9 -12 (offered in Spring Semester 2023 - 2024)

Prerequisite: Nutrition and Foods

Do you enjoy trying new foods from around the world? This course offers you the opportunity to experience preparing and tasting foods from other countries and different regions within the United States. Students will research the historical, geographical and cultural influences on foods from many countries and choose to prepare and taste foods from those countries and regions. They will learn how those foods have traveled to the United States and made their culinary mark on our own culture today. Each student will present their research via a class presentation. Additionally, students will learn about new herbs and spices in their prepared dishes. They will experience a celebration of ethnic backgrounds in this exciting course.

BAKING AND PASTRY

One semester – ½ Credit

Grades 9 -12 (offered in Spring Semester – 2022 - 2023)

Prerequisite: Nutrition and Foods

This class builds on basic food preparation skills learned in Nutrition and Foods. The purpose of this course is to learn more complex baking skills that would be needed in the baking industry, as well as home use. Students will learn techniques to decorate and display baked goods and even develop new taste sensations. They will bake cakes, cupcakes, cookies, yeast breads and quick breads, pastries and desserts such as puddings and ice cream. The course will culminate with a bake off. **Students interested in the culinary arts as a profession are encouraged to enroll in this course.**

MATHEMATICS

Algebra I R+

Full year, 1 credit
Grade 9

Prerequisite: Math 8 with recommendation (average of 75% or higher in grade 8 with intentions of attending a 2- or 4-year college)

This is the first course in a three-year sequence of high school mathematics. This curriculum is designed to deliver the Mathematics Common Core domains of Algebra, Functions, Numbers and Quantity, Geometry, and Statistics. This curriculum will focus on problem solving and development of graphing calculator skills. This particular course will provide enrichment and elaborate on algebraic reasoning and coordinate geometry in order to develop a deeper understanding of real world applications as well as prepare students for upper-level mathematics courses. Students will take the Common Core Algebra Regents Exam in June.

Algebra I R

Full year, 1 credit
Grade 9

Prerequisite: Math 8 (below 75% average in grade 8 or teacher recommendation)

This is the first course in a three-year sequence of high school mathematics. This curriculum is designed to deliver the Mathematics Common Core domains of Algebra, Functions, Numbers and Quantity, Geometry, and Statistics. This curriculum will focus on problem solving and development of graphing calculator skills. Students will take the Common Core Algebra Regents Exam in June.

GEOMETRY R+

Full year, 1 credit
GradeS 10-11

Prerequisite: Algebra I R+ (average above a 75%) or Algebra 1R (average above 95% with teacher recommendation & 5 week trial period) or Intermediate Algebra (average above a 75% with teacher recommendation & 5 week trial period)

This is the second course in the three-year N.Y.S. Regents sequence for mathematics. In this course, students will cover the topics required by New York State in preparation for the Common Core Geometry Regents Exam in June. Students will develop their deductive reasoning skills by working with transformations, congruence, modeling in two and three dimensions, similarity and proportions. Other topics to be included are trigonometry, constructions, and properties of triangles, quadrilaterals and circles. The study of proofs will be a part of the course.

GEOMETRY HONORS

Full year, 1 credit
Grades 9-10

Prerequisite: Algebra I Accelerated (grade 8) or Algebra I R+ (average of 95% or higher in grade 9 with teacher recommendation)

Students from Algebra I who demonstrate exceptional mathematical independence, work ethic, and communication skills will be enrolled in our Geometry Honors class. The New York State Regents curriculum will be implemented with the addition of several enrichment topics to prepare students for the rigor of college level work in future mathematics courses. Students enrolled in Geometry Honors move at a faster pace than those in Geometry R+ and complete work beyond the NYS curriculum. This course employs an integrated approach to the study of geometric relationships and proofs. The course culminates with the Common Core Geometry Regents Exam in June.

ALGEBRA II R+

Full year, 1 credit
Grades 10-12

Prerequisite: Geometry R+ (average of 75% or higher), Geometry Honors (average of 75% or higher), or College Algebra and Trigonometry (average of 65% or higher)

This is the third course in the three-year N.Y.S. Regents sequence in mathematics. This course meets the requirements for a Regents Diploma with Advanced Designation. This course continues algebraic study to explore linear, quadratic, and exponential functions. Students extend their knowledge base to include polynomial, rational, and radical functions. Students continue to expand and hone their abilities to model situations and to solve equations. Problem sets include solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. This course culminates with the Common Core Algebra II Regents Exam in June.

APPLIED GEOMETRY

Full year, 1 credit
Grades 10-11

Prerequisite: Algebra I R

This is the second course in a three-year mathematics sequence for students planning a vocational or career path upon graduation. The curriculum of this course will incorporate the standards from the Common Core in Geometry to provide a basic knowledge of geometric vocabulary and skill sets while allowing for more exploratory based activities. Basic geometric concepts will be connected to real world scenarios created in today's working world.

REAL WORLD MATH

Full year, 1 credit
Grades 11-12

Prerequisite: Applied Geometry

Students will study math concepts in context with the goal of making the concepts more practical and relevant. The course will encourage students to look at math in new ways and to apply it to everyday situations in the following areas: careers, cars, voting methods, personal finance, health, travel, and consumer decisions. Students will be taught how to evaluate and interpret the statistics they encounter in the real world. They will also perform appropriate calculations and make predictions using this data. Explorations into other areas of mathematics will also be conducted as time allows.

INTERMEDIATE ALGEBRA

Full year, 1 credit
Grades 10 -12

Prerequisite: Algebra IR+ (average 65-75%), Algebra IR (teacher recommendation)

The scope and sequence of this course will continue to strengthen the students' skills in algebraic manipulation and their command of algebraic notation while continuing to expand their abstract reasoning skills and advancing intermediate algebraic skills. Introductory topics from the NYS Geometry curriculum have been added to provide a foundation for a successful student to re-enter the Regents with Advanced Designation sequence. It includes work with non-linear algebraic expressions, irrational and complex numbers, rational expressions, quadratics, radical expressions, fractional exponents and a study of the relationship between functions and the graph of a function. The goal of the course is to provide not only an understanding of mathematics, but also an analysis of the concepts. This is a pre-requisite for the Collegian course through SUNY Ulster, College Algebra and Trigonometry.

AP COMPUTER SCIENCE PRINCIPLES

Full year, 1 credit

Grades 10 -12

Prerequisite: Geometry R+ or Intermediate Algebra

Students will learn the basics of writing code using the languages Python and Javascript with a focus on creativity in programming as the students build their own apps and write original programs with the skills they gain throughout the year. In addition, students will learn about a variety of other computer science topics including representing digital information, processing data, computer systems and networks including the internet, common algorithms for solving problems, cybersecurity, and computer safety. Throughout the course the impact of computing on individuals, societies, and the world is discussed. The AP test for this course consists of a multiple choice test in May and a project where the student will create an original program. Upon successfully completing the AP exam, the student may be eligible for credit at colleges and universities participating in the AP Program. A registration fee is required for the AP exam in the fall (fee reductions are available for qualifying students).

COLLEGE COMPUTER SCIENCE

Full year – 1 credit

Grades 11-12

Prerequisite: AP Computer Science Principles (average of 73% or higher)

COST TO STUDENT: SUNY Ulster determines the tuition for college credit (4 credits) or it can be taken for high school credit for no cost.

This course covers the fundamentals of computer problem solving and programming. Topics include: program development process, object-oriented and structured programming methodologies, compiling, interpreting, linking, executing, error conditions, variable expressions/assignment, fundamental programming constructs, algorithms for solving simple problems, secure coding techniques, and professional behavior in response to ethical issues inherent in computing. The Java programming language is used.

COLLEGE ALGEBRA & TRIGONOMETRY

Full year – 1 credit and option for 4 semester hours college credit

Grades 11-12

Prerequisite: Geometry R+ (average of 65-75%) or Intermediate Algebra (average of 73% or higher)

COST: SUNY Ulster determines the tuition for college credit or it can be taken for high school credit for no cost.

Students will explore topics from all areas of mathematics. They will continue their study of Algebra and Geometry while being introduced to topics from Common Core Algebra II, as well as new material from the College Algebra and Trigonometry syllabus. A student who has completed Algebra I, Geometry, and this course in their junior year will be encouraged to finish the NYS Regents with Advanced Designation sequence in their senior year by taking the Algebra II R+ course.

Topics in mathematics preparatory to pre-calculus are covered in this course. Students study linear and quadratic equations; absolute value and polynomial inequalities, coordinate geometry of the line and the circle, linear and polynomial functions, techniques of graphing, exponential functions, logarithms, right triangle trigonometry, trigonometric functions of any angle and fundamental trigonometric identities.

ELEMENTARY STATISTICS

Full year – 1 credit and option for 4 semester hours college credit

Grades 11-12

Prerequisite: Algebra II R+, College Algebra and Trigonometry (average of 73% or higher)

COST: SUNY Ulster determines the tuition for college credit or it can be taken for high school credit for no cost.

Statistics is a required course in many college degree programs including pre-medical, marketing, management, clinical psychology, education, and health care. The curriculum of this course was designed using New York State Mathematics Common Core Standards for fourth year courses and the SUNY Ulster MAT2.11 Syllabus for Elementary Statistics. Students in this course will apply formulas and tables, interpret answers and draw conclusions, think critically, and develop an understanding of numbers in real-life situations. The course will demonstrate the interrelationship between "Descriptive Statistics," "Probability" (theoretical models), and "Inferential Statistics."

PRE-CALCULUS

Full year – 1 credit

Grades 11-12

Prerequisite: Algebra II R+ or College Algebra and Trigonometry (average of 73% or higher)

COST: SUNY Ulster determines the tuition for college credit or it can be taken for high school credit for no cost.

This Pre-Calculus Course was developed by the Saugerties High School Math Department and was accepted as a collegian course through SUNY Ulster. This course is strongly encouraged for students planning to attend a 4-year college or university upon graduation. The topics will include advanced algebra, functions, relations, logarithms, and trigonometry with emphasis on pre-calculus skills. This rigorous course will prepare students for college-level Calculus. (Accelerated students are strongly encouraged to take ADVANCED PLACEMENT CALCULUS AB their senior year.)

AP CALCULUS AB

Full year – 1 credit

Grade 12

Prerequisite: Pre-Calculus

This course follows the syllabus of the College Board's Advanced Placement Calculus AB course. This particular class emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. Topics include functions, differential calculus and integral calculus. A graphing calculator is required.

A student receiving AP credit will complete supplemental course work in preparation for the AP exam. Upon successfully completing the AP exam, the student may be eligible for credit at colleges and universities participating in the AP Program. A registration fee is required for the AP exam (fee reductions are available based on financial need).

VOICE I

Full-year, ALTERNATE DAYS- ½ credit

Grades 8-12

Co-requisite: Must be enrolled in a vocal ensemble.

Beginner vocal skills and techniques are studied as the foundation for solo singing and choral singing in Voice I. NYSSMA levels 1-3 literature and sight singing will be studied in class and at home. Students will gain a deeper understanding of the singing voice and basic music theory comprehension. Grading is based on 2/3 singing and 1/3 written. Students must be part of a vocal ensemble at S.H.S. and be recommended by their music teacher. (This course is a prerequisite to Voice II.)

VOICE II

Full-year, Alternate days, ½ credit

Grades 9-12

Pre- and Co-requisites: Must be enrolled in a vocal ensemble and have completed Voice I.

Intermediate vocal skills and techniques are studied as the foundation for solo singing and choral singing in Voice II. NYSSMA levels 3-6 literature and sight singing will be studied both at school and at home. Students are expected to participate in the NYSSMA solo festival to represent themselves and S.H.S. Students will further their understanding of the voice and deepen their music reading skills and comprehension. Prerequisite is the completion of Voice I or by audition and recommendation from their music teacher. All voice students must be enrolled in one of the school's performing ensembles.

VOICE III

Full-year, Alternate days, ½ credit

Grades 10-12

Pre- and Co-requisites: Must be enrolled in a vocal ensemble and have completed Voice II.

Advanced vocal skills and techniques are studied as the foundation for solo singing and choral singing in Voice III. NYSSMA All-State literature and sight singing will be studied both at school and home. Students are expected to participate in the NYSSMA solo festival to represent themselves and Saugerties High School. Students will further their understanding of the voice, deepen their music reading skills and strengthen their knowledge of music theory, vocal techniques and comprehension of vocal music.

PIANO/BEGINNING COMPOSITION I

Full-year, Alternate days, ½ credit

Grades 8-12, placement based on class seniority

Students will learn basic piano skills, music notation and beginning composition skills using touch-sensitive electric pianos and music software. Prior music knowledge is helpful, but not necessary. Practice outside of the class, whether at home or in school, is a must. Highly recommended for students intending to major or minor in music at the collegiate level.

PIANO II

Full-year, Alternate days, ½ credit (Depending on enrollment, may be offered every-other-year.)

Grades 9-12

Prerequisite: Piano/Music Composition I or demonstration of necessary skills.

Students will learn more advanced piano literature, skills, music notation, techniques and compositional skills using touch-sensitive electronic pianos and other software. Practice outside of class is advantageous, either at home or at school. Highly recommended for students intending on majoring in music at the collegiate level or for students who are determined to put forth the time and effort needed to be successful at the piano.

(Music Dept., Cont'd.)

MUSIC THEORY

Grades 10 – 12, offered every other year, alternating with AP Music Theory.

Prerequisite: Solo or ensemble performing experience, Approval of instructor. The student must be enrolled in a band or chorus concurrently with Music Theory. **There is an option to receive college credit at S.U.N.Y. Ulster at a nominal additional expense to the student.**

Objectives:

1. To study theory through analysis of composition in a variety of style periods.
2. To use composition as a means of developing insights to great musical works of the past and present.
3. Develop an awareness of music as an art in a historical context.
4. Develop aural-visual skills needed in performance and analysis.
5. Develop experience in orchestration, arranging and conducting.

AP MUSIC THEORY

Grades 10 – 12, offered every other year, alternating with Music Theory.

Prerequisite: Solo or ensemble performing experience, Successful completion of Music Theory or pass written placement test.

Co-Requisite: Student must be enrolled in a chorus or band concurrently.

The AP Music Theory course corresponds to one or two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills, including dictation and other listening skills, sight singing and harmony are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the curriculum through the practice of sight singing. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed and fluency with basic materials are also emphasized.

Students should have a basic understanding of the voice and an instrument and be a part of a large ensemble, such as band or choir. Students should know all major and minor key signatures and scales. Students must pass a written test or complete the College Music Theory course offered at SHS before taking this course.

MEMBERSHIP IN HIGH SCHOOL BAND AND CHOIR IS BASED ON TEACHER RECOMMENDATION. NEW STUDENTS MUST PERFORM A PLACEMENT AUDITION FOR THE DIRECTOR.

****For all Performance Music Classes, participation is required in ALL regular and special rehearsals as well as performances EXCEPT for reasons which would be considered legal excuses for absence from school. Members perform annually in state and county music festivals. Regular attendance at rotating music lessons is expected.**

BAND

HIGH SCHOOL CONCERT BAND

Full Year – 1 credit

Grades 9– 12

May be taken each year by teacher recommendation, with attention to instrument balance of group, performing NYSSMA Level IV repertoire.

This is a performance music course. Please see the departmental note above ** regarding participation. Flexible scheduling of EOD or one-semester (.5 credit) only allowed to accommodate students' schedule conflicts..

HIGH SCHOOL WIND ENSEMBLE

Full Year – 1 Credit

Grade 9-12

May be taken each year by teacher recommendation, with attention to instrumental balance of group. This band course is more soloistic in nature and is a smaller group, performing NYSSMA V and VI repertoire. Flexible scheduling of EOD or one-semester (.5 credit) only allowed to accommodate students' schedule conflicts.

CHOIR

HIGH SCHOOL CHOIR

Full Year – 1 credit

Grades 9 – 12 Bass voices (tenor, baritone, bass), Grades 10-12 Treble voices (soprano, alto).

This is a performance music course, with placement by teacher recommendation that may be taken each year. Please see the departmental note above ** regarding participation. Flexible scheduling of EOD or one-semester (.5 credit) only allowed to accommodate students' schedule conflicts.

HIGH SCHOOL TREBLE ENSEMBLE

Full Year- .5 credit, Every-other-day

Grades 9-12

This is a performance music course for students in grade 9 and higher with treble voices (soprano, alto). Placement is by teacher recommendation. Please see the departmental note above ** regarding participation.

THE MUSIC SEQUENCE CONSISTS OF FIVE CREDITS OF MUSIC COURSES, WITH MUSIC THEORY BEING A SEQUENCE REQUIREMENT. THIS SEQUENCE, IF OFFERED, MAY BE SUBSTITUTED FOR THE THREE-CREDIT FOREIGN LANGUAGE REQUIREMENT.

PHYSICAL EDUCATION

PHYSICAL EDUCATION

Full Year – ½ credit

Grades 9 – 12

All students are required to participate. This is a mandate of the New York State Education Department. However, those with a physical disability provided with an adapted program and those with a temporary medical condition will be provided with a written assignment. All exemptions are to be processed through the Nurse's Office. The physical education teachers will be made aware of the individual's limitations and provide them with these special programs.

The physical education program is designed to provide an active class experience. Therefore, it is important that each student be dressed appropriately for the planned activity.

TWO CREDITS OF PHYSICAL EDUCATION ARE REQUIRED FOR GRADUATION.

HEALTH

HEALTH

One Semester – ½ credit

Grades 10 – 12

The comprehensive curriculum includes education on drugs, alcohol, tobacco, mental health, nutrition and human sexuality. The emphasis of the class is to help the student recognize the value of attaining and maintaining good health.

The course is designed to give accurate up-to-date information to help the student make better informed health decisions. A final exam or project is given.

ONE-HALF CREDIT OF HEALTH IS REQUIRED FOR HIGH SCHOOL GRADUATION.

SCIENCE

LIVING ENVIRONMENT R+/LIVING ENVIRONMENT R/CO-TEACH LIVING ENVIRONMENT R (BIOLOGY)

Full Year – 1 credit

Six class periods, plus three laboratory periods per six-day cycle.
Usually taken in 9th grade (8th for Accelerated Science Students)

REGENTS EXAM

Students will study the following topics throughout the course: similarities and differences among living organisms, human systems, homeostasis in organisms, genetic continuity, reproduction and development, evolution, ecology, human impact on ecosystems, scientific inquiry and laboratory skills.

The course focuses on the following key ideas from Standard 4 of the N.Y.S. Living Environment Core Curriculum:

Key Idea 1: Living things are both similar to and different from each other and from nonliving things.

Key Idea 2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.

Key Idea 3: Individual organisms and species change over time.

Key Idea 4: The continuity of life is sustained through reproduction and development.

Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.

Key Idea 6: Plants and animals depend on each other and their physical environment.

Key Idea 7: Human decisions and activities have had a profound impact on the physical and living environment.

Twenty satisfactory, documented “hands-on” laboratory hours are required to take the Regents Exam at the end of the course. The ability to read and assimilate a large amount of material and vocabulary is necessary to master the course. This course culminates in the Living Environment Regents Exam, which also counts as the final exam for the course.

EARTH SCIENCE R+

Full Year – 1 credit

Six class periods, plus three laboratory periods per six-day cycle.

Grades – Usually taken in 10th grade (9th for Accelerated Science Students)

REGENTS EXAM

Earth Science is a study of man’s environment which considers the earth; its material and processes, its history and its place in space. Recent developments in meteorology, space exploration and environmental studies are explored. The course is based on science skills and incorporates both biological and physical science components to enhance literacy skills. Self-paced lab activities will be stressed. This course culminates in the Earth Science Regents Exam, which also counts as the final exam for the course.

CHEMISTRY R+

Full Year – 1 credit

Six class periods plus three laboratory periods per six-day cycle

Usually taken in 11th grade (10th for Accelerated Science Students)

REGENTS EXAM

Prerequisite: Successful completion of Algebra and Geometry (courses and exams) required, but may take Geometry concurrently. Successful completion of Living Environment R+ and Earth Science Regents Exams and classes.

The chemistry course consists of 10 areas: matter and energy, atomic structure, bonding, periodic table, mathematics of chemistry, kinetic and equilibrium, acid base theories, redox and electrochemistry, organic chemistry, nuclear chemistry and application of principles of reaction. This course culminates in the Chemistry Regents Exam, which also counts as the final exam for the course.

(Science Department, Cont’d.)

PHYSICS R+

Full Year – 1 credit

Six class periods, plus three laboratory periods per six-day cycle.

Grades 11 – 12

REGENTS EXAM

Prerequisite: Completed or enrolled in Algebra 2 & Trigonometry

Physics is the study of the relationship between matter and energy. The main units of study include: motion, potential and kinetic energy relationships, wave phenomena (including light), electricity and magnetism, atomic and nuclear physics. This course culminates in the Physics Regents Exam, which also counts as the final exam for the course.

GENERAL EARTH SCIENCE

Full Year- 1 credit

Grades 10-11

Students will study the earth's structure and processes that affect the earth. Topics discussed include rocks, minerals, weathering, erosion, astronomy, the oceans and the atmosphere. Natural hazards such as volcanoes, earthquakes and hurricanes will also be discussed throughout the year. Labs will be performed during class time. This course culminates in a local final exam.

ENVIRONMENTAL SCIENCE

Full Year- 1 credit

Grades 10-12

Students will study environmental relationships between society and those biotic and abiotic resources in which it is dependent upon (ecology, forestry, land use, climate change, pollution, energy). This class is a physical science course. The class culminates in a local final exam.

ANIMAL SCIENCE I

Half Year- 1/2 credit

Grades 10-12

Prerequisite: Successful completion of Living Environment class and Regents exam

Animal Science 1 will address the question, "What is an animal?" As an introduction to the animal kingdom students will learn how animals are classified by their characteristics. This will teach about the science of taxonomy (scientific naming) as well as how each group of animals is different from each other. Other topics within the semester will include identification keys, evolution and evolutionary evidence.

ANIMAL SCIENCE 2

Half year, ½ credit

Grades 10-12

Prerequisite: Successful completion of Living Environment class and Regents exam

Animal science 2 will study animals in their ecosystems along with different biomes. Food chains and feeding relationships, populations and limiting factors. How animals interact with each other and their environment through symbiosis and other behaviors will also be studied. In the end we will examine the philosophy of whether or not animals should be kept in captivity such as zoos and aquariums.

(Science Department, Cont'd.)

HORTICULTURE I & II

Two half-year courses, ½ credit each

Grades 10-12

Prerequisite: Successful completion of Living Environment and a minimum grade of 65% on the Living Environment Regents Exam.

This project-based course will introduce students to the science of growing, managing and harvesting plants using the school garden, greenhouse and hydroponic/aquatic systems. Topics that will be covered include greenhouse management, plant morphology/physiology, agriculture (growing/harvesting crops), silviculture (forestry), floriculture (growing/harvesting flowers), and landscape design.

REAL-WORLD PHYSICS I

Half-year, ½ Credit

Grades: Grades 10-12

Prerequisite: Successful completion of a high school life science

Real World Physics I is a half-year course that focuses on topics that include: matter, motion in 1 dimension, motion in 2 dimensions, energy, and forces. This is a hands-on course that uses inquiry-based learning to understand the physical laws that govern our universe.

REAL-WORLD PHYSICS II

Half-year, ½ Credit

Grades: Grades 10-12

Prerequisite: Successful completion of a high school life science

Real World Physics II is a half year science course that focuses on numerous topics pertaining to the physical world that surrounds us. These topics include: work, power, energy, simple machines, waves, and electricity. This is a hands-on course that uses inquiry-based learning to understand the physical laws that govern our universe.

CHEMISTRY AND FORENSICS

Full Year - 1 credit

Grades 10 – 12

Prerequisite: Successful completion of both the Living Environment class and Regents exam.

Forensics is the science as it relates to the law. Subjects that will be studied in this class include (but are not limited to), crime scene investigation, fingerprinting, blood spatter analysis, forensic anthropology, shoe print casting, and handwriting analysis. Additionally, true crime (with a focus on crime in New York State) as it relates to each subject will be explored.

(Science Department, Cont'd.)

ANATOMY & PHYSIOLOGY

Full Year - 1 credit

Grades 10-12

Prerequisite: Successful completion of Regents Living Environment (Successful completion of Regents Earth Science and 1 year Regents chemistry or Regents chemistry taken concurrently is preferred **but not required**)

This course is an advanced science elective/college prep course and is highly recommended for students planning to major in the medical field (especially nursing), or physical education majors. It is also recommended for students planning to take New Visions Health. This course is an intensive investigation into Anatomy and Physiology to prepare students for success in Anatomy and Physiology I and II in college. Topics include Introduction to Anatomy and Physiology, Chemistry basics, Cells and Tissues, Integumentary System (Skin), Skeletal System, Muscular System, Nervous System, Endocrine System, Blood, Cardio-vascular System, Lymphatic System, Immune System, Respiratory System, Digestive System, Urinary System, and Reproductive System. Labs will be performed during class.

AP BIOLOGY/BIO105 [General Biology I]

Full Year- 1 credit

(College credit available through the AP exam [number of college credits varies among colleges] and/or 4 college credits through SUNY Ulster)

Six class periods plus three laboratory periods per six-day cycle

Grades 10 – 12

Prerequisite: Successful completion of Regents Living Environment (Successful completion of Regents Earth Science and 1 year Regents chemistry or Regents chemistry taken concurrently is preferred **but not required**)

This course is part of the A.P. program and is also offered through SUNY Ulster as part of their Collegian program as BIO105 (General Biology I) for 4 credits. A.P. Biology/BIO105 is a college biology course that covers a wide range of topics and provides the necessary background and a solid biology foundation needed for further biology courses in college. BIO105 is often a prerequisite to higher-level biology courses and a required course for many science major programs. Students majoring in science in college will greatly benefit from this course. Topics include scientific inquiry, biochemistry, cell structure and function, cell transport, enzymes, energy, photosynthesis, cellular respiration, cell communication, cell division, genetics, evolution, ecology, animal behavior, gene regulation and expression, and biotechnology. It is based on the following College Board's four big ideas: The process of evolution drives the diversity and unity of life. Biological systems utilize free energy and molecular building blocks to grow, reproduce, and to maintain dynamic homeostasis. Living systems store, retrieve, transmit and respond to information essential to life processes. Biological systems interact and these systems and their interactions possess complex properties.

This course is equivalent to a college level course with a substantial laboratory component. The course and labs are intended to challenge student's abilities to understand problems, develop and implement appropriate experimental designs, manipulate and mathematically analyze data, draw conclusions, develop hypotheses and think scientifically.

If options for college credit are utilized, then this is a fee-based class. Fee reductions are available based on financial need. Upon successfully completing the AP exam, the student may be eligible for credit at colleges and universities participating in the AP Program. A registration fee is required for the AP exam. SUNY Ulster determines the tuition for college credit or it can be taken for high school credit for no cost.

AP CHEMISTRY

Full Year – 1 credit (College credit available)

Six class periods plus three laboratory periods per six-day cycle

Grades 11 – 12

Prerequisite: Successful completion of Regents Chemistry and a strong math background.

The course strives to develop the student's abilities to think clearly and to develop competence in dealing with chemical problems. There is an emphasis on chemical calculations and the mathematical formulation of principles along with extensive laboratory work.

This is a fee-based class. A registration fee is required for the AP exam. Fee reductions are available based on financial need. Upon successfully completing the AP exam, the student may be eligible for credit at colleges and universities participating in the AP Program.

(Science Department, Cont'd.)

AP ENVIRONMENTAL SCIENCE/SCI104 [Environmental Themes]

Full Year- 1 credit

(College credit available through the AP exam [number of college credits varies among colleges] and/or 3 college credits through SUNY Ulster)
Six class periods, plus three laboratory periods per six-day cycle
Grades 10-12

Prerequisite: Successful completion of Living Environment R+ and Earth Science R+. (Regents Chemistry is preferred **but not required**.)

AP Environmental Science is an interdisciplinary course that embraces a wide variety of topics from different areas of study in order to understand the relationships of the natural world and human impact upon it. There are several major unifying constructs or themes: Earth Systems and Resources, the Living World, Population, Land and Water Use, Energy Resources and Consumption, Pollution and Global Change.

This course has a strong fieldwork component and students must be prepared to work outdoors.

If options for college credit are utilized, then this is a fee-based class. Fee reductions are available based on financial need. Upon successfully completing the AP exam, the student may be eligible for credit at colleges and universities participating in the AP Program. A registration fee is required for the AP exam. SUNY Ulster determines the tuition for college credit or it can be taken for high school credit for no cost.

COLLEGE PHYSICS/PHY101 [General Physics I]

Full Year- 1 credit

(4 college credits available through SUNY Ulster)

Six class periods, plus three laboratory periods per six-day cycle

Grades 11-12

REGENTS EXAM (If student has not taken the Regents Physics exam previously)

Prerequisite: Completed or enrolled in Algebra 2 & Trigonometry

Physics is the study of the relationship between matter and energy. Students will take an inquiry-based approach to study the origin and validity of Newtonian Physics. The main units of study include: mechanics, wave motion, and thermodynamics. This class is appropriate for any student that wishes to pursue a career in any STEM-related field.

SCIENTIFIC RESEARCH AND DESIGN I & II

Two half-year courses, ½ credit each

Grades 9 – 12

This course introduces students to advanced experimental science research, including the reading and analysis of current scientific literature, coming up with a unique and testable scientific question, advanced techniques of hypothesis testing, data collection, and statistical analysis of their data. Students will generate a scientific paper, poster, and report, with the goal of potential publication, and/or entry into various science fairs. At the end of the first semester, students will submit their projects to the Greater Capitol Region Science and Engineering Fair with the potential to move on to the International Science and Engineering Fair. Second semester students can continue their research with a follow up question, or come up with a new experiment to submit to a NASA competition or Google Science Fair.

SOCIAL STUDIES

Global History & Geography I 9R+

Full year-1 credit

Grade 9

This is the first year of a two year sequence that is arranged chronologically. The goal is to enable students to become informed citizens regarding cultures, economies and political structures around the world. Students will use intellectual skills to demonstrate understanding of major ideas, eras, themes, developments, geography and turning points in world history. The course includes prehistory and ancient civilizations and concludes with the time of Absolutism. Students will develop the ability to communicate their understanding of world history from various perspectives while developing critical thinking and writing skills. There is a local final at the conclusion of 9th grade, which counts as 20% of the course grade.

Ancient Global History 9

Full year-1 credit

Grade 9

This course covers the same topics as Global History 9R+ , however, the class is conducted at a pace appropriate with student learning and incorporates supplemental skills practice in preparation for the 10th grade Regents exams. There is a local final at the conclusion of 9th grade, which counts as 20% of the course grade.

Global History & Geography I 9H

Full year- 1 credit

Grade 9

Prerequisite: Students who meet the honors recommendation criteria.

This is the first year of a two year sequence that is arranged chronologically. The goal is to enable students to become informed citizens regarding cultures, economies and political structures around the world. Students will use intellectual skills to demonstrate understanding of major ideas, eras, themes, developments, geography and turning points in world history. The course includes prehistory and ancient civilizations and concludes with the Age of Absolutism. Students will develop the ability to communicate their understanding of world history from various perspectives while developing critical thinking and writing skills. The honors program's purpose is one of enrichment, giving above average students more intensive preparation in the skills and concepts necessary for success in college. Students who have an overall 92 average in their 8th grade history class and are recommended by their teacher will be considered. There is a local final at the conclusion of 9th grade, which counts as 20% of the course grade.

Global History & Geography II 10R+

Full year- 1 credit

Grade 10

Prerequisite: Global 9

This is the second year of a two year sequence that is arranged chronologically. The goal is to enable students to become informed citizens regarding cultures, economies and political structures around the world. Students will use intellectual skills to demonstrate understanding of major ideas, eras, themes, developments, geography and turning points in world history. The course begins with the Enlightenment and continues through the present. Students will develop the ability to communicate their understanding of world history from various perspectives while developing critical thinking and writing skills. Students are required to pass a Regents exam at the end of the course, which counts as 20% of the course grade.

(Social Studies, Cont'd.)

Modern Global History 10

Full year-1 credit

Grade 10**Prerequisite: Global 9**

This course covers the same topics as Global History 10+, however, the class is conducted at a pace appropriate with student learning and incorporates supplemental skills practice in preparation for the Regents exams. Students are required to take the 10th grade Regents exam at the conclusion of the class, which counts as 20% of the course grade.

AP European History**Full year-1 credit****10th, 11th, 12th grade****Prerequisite: Global 9**

It is conducted primarily as a seminar on the changes in social, political, religious, and economic trends and forces that shaped European history from approximately 1450 to the present. Students in this course are required to analyze, interpret, and apply primary source evidence and literature. In addition, they will read college-level texts and demonstrate effective writing and oral communication skills. Students who have an overall 92 average in their 9th grade history class and are recommended by their teacher will be considered. Sophomores will take this course in place of Global History 10. 11th and 12th grade students must have successfully passed their Global 10 class and the Regents exam. Students take the AP European History examination in May. Most colleges give credit and/or advanced standing to entering freshmen who have passed the AP examination with a score of 4 or 5. Many also give this credit if a student scores 3. This is a fee-based class. Fee reductions are available based on need. 10th grade students also take the Global History Regents exam in June, which counts as 20% of the course grade.

United States History and Government 11R+**Full year-1 credit****11th**

This chronological course emphasizes the history and development of the United States and surveys important national developments in politics, government, foreign policy, and economics. Students will learn about the important roles and contributions of individuals and groups. The course will also examine how the Constitution, the Supreme Court decisions, and the rights of citizenship provide a major unifying factor in bringing together Americans from diverse roots and traditions. All students are required to pass the Regents exam, which counts as 20% of the course grade.

AP United States History**Full year- 1 credit****11th and 12th**

This is a college level chronological United States history course. Emphasis is placed on critical and evaluative thinking skills, essay writing, and interpretation of original documents. This course prepares students for intermediate and advanced college courses.

It is opened to seniors who have successfully passed the United States History and Government course and the Regents exam. Students who have an overall 92 average in their 10th grade history class and are recommended by their teacher will be considered. Juniors will take this course in place of United States History and Government. Students take the AP United States History examination in May.

Most colleges give credit and/or advanced standing to entering freshmen who have passed the AP examination with a score of 4 or 5. Many also give this credit if a student scores 3. (AP exams require a fee) Students may also pay a fee through UCCC to receive college credits for this course. Fee reductions are available based on need.

11th grade students also take the United States History & Government Regents exam in June, which counts as 20% of the course grade.

(Social Studies, Cont'd.)

Economics R+**One Semester-½ credit**

Grade 12-Required for graduation

Economics is a largely project based course. The content includes both macroeconomic topics such as GDP, unemployment, inflation, saving, investing, exchange rates, Fiscal and Monetary policies, economic systems, international trade, scarcity and opportunity cost. As well as microeconomic topics like supply and demand, market structures, business organizations, circular flow, market failure and government intervention. The course culminates in a final project, which counts as 20% of the course grade.

Government R+

One Semester-½ credit

Grade 12-Required for graduation

This course is designed to delve deeper into the working of our government at the local, state, national and international levels. A thorough study of the role political parties play in a democratic system will be included. The government class is centered on a civic oriented approach as students are expected to spend time completing community service as well as attending various Board of Education and town meetings, which counts as 20% of the course grade.

AP Government and Politics/Honor Economics

Full year-1 credit

Grade 12

Students who opt to take this course will fulfill both their ½ credit government and ½ credit economic requirements. The heavy emphasis of these courses will be AP Government material. The course is designed to teach American constitutional government based on principles of philosophy, political beliefs and behavior, political parties and interest groups, national institutions and policy processes and law. Emphasis is given to the relationship of the citizen to the structure and function of the American constitutional system. Students who have an overall 92 average in their 11th grade history class and are recommended by their teacher will be considered. Most colleges give credit and/or advanced standing to entering freshmen who have passed the AP examination with a score of 4 or 5. Many also give this credit if a student scores 3. This is a fee-based class. Fee reductions are available based on need.

Psychology 1R+

One Semester-½ credit

Grades 11th, 12th (Sophomores: subject to availability/permission of the instructor)

The scientific study of human behavior is the theme of this course. The student is introduced to the tools of the psychologist-interview, observation, testing devices, case study, etc. He explores areas of psychology, parapsychology, child and adolescent development, personality development, learning, emotion, maturations, attitudes, values and mental health illness. Field trips will be made and guest speakers involved. There is a local final given, which counts as 20% of the course grade.

Psychology II R+

One Semester-½ credit

Grades 11th, 12th (Sophomores: subject to availability/permission of the instructor)

This is a continuation of the basic introduction to the Psychology course. Abnormal psychology is studied in greater depth. Theories such as Transactional Analysis are investigated. Emphasis is placed on the psychology of the arts, the athlete, stress and motivations and the schools of psychological thought (Skinnerian, Rogerian, Freudian, etc.). Interviews, guest speakers and field trips are important. There is a local final given, which counts as 20% of the course grade.

(Social Studies, Cont'd.)

Criminology

One Semester-½ credit

Grades 11th, 12th (Sophomores: subject to availability/permission of the instructor)

This is a study of the criminal justice system of the United States. The course includes a study of the causes of crime, enforcement and correction procedures, and the rights of both the accused and the victim. The goals of the course are to provide a practical understanding of law and the legal system; improve understanding of the fundamental principles and values underlying the U.S. Constitution, laws and legal system; promote awareness of current issues relating to law and the legal system; encourage effective and informed civic participation in our democracy; improve understanding of roles that law, lawyers, law enforcement, and the legal system play in our democracy; and expose students to the many vocational opportunities that exist within the legal system. There is a local final given, which counts as 20% of the course grade.

You and the Law

One Semester-½ credit

Grades 11th, 12th (Sophomores: subject to availability/permission of the instructor)

This is a practical course on civil law. The course includes a study of law and the legal system, tort law, consumer law, and family law. The goals of the course are to provide a practical understanding of law and the legal system; promote awareness of current issues relating to law and the legal system; encourage effective and informed civic participation in our democracy; develop a willingness and an ability to resolve disputes through informal, and where necessary, formal mechanisms; improve understanding of the role that law, lawyers and the legal system play in our democracy; provide exposure to the many vocational opportunities that exist within the legal system. There is a local final given, which counts as 20% of the course grade.

Human Geography

Full Year-1 credit

Grades 9-12

This elective course will introduce students to the patterns and processes that shape how humans use, change, and understand the earth. Throughout this course, students will understand how cultural, economic and political systems relate to the human experience. They will analyze the nature of social, economic, political, environmental and cultural elements within societies. Students will recognize the similarities and differences among societies, while learning about the methods and tools used by geographers.

Sociology

One semester- ½ credit

Grades 11th, 12th (Sophomores: subject to availability/permission of the instructor)

Sociology is an elective course designed to familiarize students with various cultures and the problems resulting from people living in groups. This course covers such topics as culture, social interactions, collective behavior, social change, social deviation, the family, racial and ethnic minorities, poverty, urbanization, media/technology and crime.

History Through Film-

One Semester- ½ credit

Grades 10-12

Film can be a method for the study of history, and that is the goal of this course. Students will view films and participate in related research and study that will allow them to analyze and evaluate their historical accuracy. Participating in this course will afford students a unique opportunity to use critical thinking skills to enrich their study of history.

(Social Studies, Cont'd.)

WISE (Wise Individualized Senior Experience)

The program is designed to develop skills for problem solving and life long independent learning. Through SHS faculty mentor-guided independent study, seniors choose a topic, typically a career, and explore that topic through research, daily journaling, on-site shadowing experiences and conducting interviews. The purpose of the program is to allow students to apply and broaden their knowledge and skill in an area of personal interest. Students receive one high school credit for completing the WISE program; ½ credit Social Studies (replacing either Economics OR Government) and ½ English credit. Elective credit may be substituted if a student wishes to remain in his or her Social Studies and English classes. The program runs October-May.

WISE Economics

One Semester-½ credit

Grade 12

This course is designed to connect economic issues to the student's area of personal interest. Students seeking credit through this program must show economic research throughout their journal and at their final presentation.

WISE Government

One Semester-½ credit

Grade 12

This course is designed to connect government issues to the student's area of personal interest. Students seeking credit through this program must show government research throughout their journal and at their final presentation.

WISE English

One Semester-½ credit

Grade 12

This course is designed to produce written work, research and presentation skills that express the student's overall experience within the program. Students seeking English credit through this program are required to keep a daily journal (60-65 entries), create a typed annotated bibliography from a variety of sources (i.e.L books, internet searches, articles, etc.) conduct 3-5 interviews, and showcase their journey with a final presentation in May.

TECHNOLOGY

DESIGN AND DRAWING FOR PRODUCTION

Full Year – 1 credit

Grades 9 – 12

This course stimulates students' understanding of the design process through challenges to develop creative solutions to project based problems. Learn to use hand and power tools while producing prototypes of your design. This hands- on course fulfills the one unit Art/Music requirement for graduation.

SMALL ENGINES

One Semester, ½ credit (fall)

Grades 9 – 12

This course is designed to give a student an understanding of small engine operation, disassembly, inspection, assembly and tuning. The student will also learn safe use of tools and machines related to this industry. Students may participate in a Mock repair shop unit dependent on scheduling and season.

TRANSPORTATION

One Semester, ½ credit (spring)

Grades 9-12

Transportation systems is a course that will acquaint students with a range of methods used to move people, materials, and products, across the land, sea and air. The study of these systems will be the main focus of the course. The theory of operation and the scientific principles of the transportation systems will be included. Lab activities will include construction of model cars, planes, rockets, and boats. Students will also experiment with internal combustion engines that are used to power our transportation systems, as well as auto repair and maintenance.

***Each student will receive training a a NYS Boating Safety Course Certificate(Boating License)

CONSTRUCTION SYSTEMS

Full-year, 1 credit

Grades 9-12

Construction Systems explores how mankind shapes the world using current technology to provide solutions for society's needs. This course will explore the four fields of construction: Light Construction, Commercial Construction, Industrial Construction, and Civil Construction. A large percentage of the course time will be spent on hands-on activities in a laboratory setting. Lab activities will center on the most common construction activities found in Light and Commercial Construction. Careers within the construction trades will be explored throughout the course. Personal safety, energy use, conservation and environmental issues are addressed as related to all fields of construction.

(Technology Dept., Cont'd.)

MATERIALS PROCESSING

One Semester, ½ credit
Grades 9-12

This course is designed to teach students how to transform raw wood material into functioning products. All the products that we use, from our cell phones and eating utensils, to our backpacks and school supplies, all started off as some kind of raw material. This material processing class will show students not only the techniques to use tools, but how these tools can be used to process raw wood into functional products.

MANUFACTURING SYSTEMS

One Semester, ½ credit
Grades 9-12

This is a comprehensive course designed for the study of general concepts and principles of Manufacturing and Manufacturing systems. This course provides for hands-on learning experience which enhances the understanding of various metallic and nonmetallic materials, processes, and products. Materials studied may include polymers, ceramics, woods, composites, and metal materials associated with manufacturing. Students will use basic tools, equipment and operations of manufacturing industries. Students have the opportunity to engage in product design, prototyping, computer-assisted manufacturing applications, CNC machines, robotics, and production management.

ENERGY

One Semester, ½ credit
Grades 10 – 12 Prerequisite: DDP or permission of the instructor

This is a design-oriented course. Topics will include design development, modeling, prototype constructions and testing of energy systems. Typical study areas include: solar design and building, photovoltaic, wind, fuel cells and other alternative energy options and devices.

ADVANCED MANUFACTURING PROCESSES AND 3D PRINTING

One year, 1 credit
Grades 10-12
Prerequisite: DDP or permission of the instructor

This course is designed to introduce the student to the world of advanced manufacturing and establish a foundation upon which further studies in manufacturing might rest. Students will explore advancements in manufacturing materials and processes, tools, techniques, and produce some simple products. Students will study methods of manufacturing including additives through the use of 3D printing software and equipment, as well as subtractive through the use of various tools including a CNC mill. Students will benefit from hands-on class-based manufacturing projects based on real-world applications.

(Technology Dept., Cont'd.)

COMPUTER AIDED DESIGN 1 (CAD 1)

One Semester, ½ credit
Grades 10 – 12

Prerequisite: D.D.P or permission of the instructor
SUNY Ulster Collegian Class: MFG-111

This course is designed to prepare students to take the Autodesk ACU exam. Students are introduced to the AutoCAD drawing platform using the flowing drafting methods: Geometric Construction, Orthographic Projection, Sectioning and Isometric Views. Special emphasis is placed on dimensioning, white space layout, GUI customization, scaling, and line weight. After successful completion of this course students will be proficient with the AutoCAD software and have an understanding of the fundamentals of drafting.

COMPUTER AIDED DESIGN 2 (CAD 2)

One Semester, ½ credit
Grades 10 – 12
Prerequisite: CAD 1
SUNY Ulster Collegian Class: MFG-112

This class is an introduction to Solid Modeling using the Autodesk Inventor Professional software. Topics emphasized include: design intent solid modeling, white space layout design, dimensioning, GD&T, GUI customization, sheet metal design and welding assembly. Students will create parts, assemblies, presentations and drawings throughout the term.

PRINCIPLES OF ENGINEERING

One Year, 1 credit
Grades 10 – 12
Prerequisite: D.D.P. or permission of the instructor

Principles of Engineering (P.O.E.) is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a post-secondary engineering course of study. Students have an opportunity to investigate engineering and high tech careers. POE gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills based upon engineering concepts.

ROBOTICS AND ADVANCED CODING

Half-year, ½ credit
Grades 11-12 (Spring only)
Prerequisite: D.D.P. of permission of instructor

The objective of this course is to introduce students in the development, building and programming of robots. Students will work hands-on in teams to design, build, program and document their progress. Topics may include motor control, gear ratios, torque, friction, sensors, timing, program loops, logic gates, decision-making, timing sequences, propulsion systems and binary number systems.

CAREER- TECH

Full Year - up to 4 credits

Grades 11 – 12

The Career Tech. Center offers a wide variety of vocational and technical choices. Every course is developed with consideration for the employment opportunities at graduation or for further education. The variety of programs encompasses nearly every interest and type of student. Emphasized are the many related skills that make a person more employable (work planning, attendance, estimating, managing, meeting deadlines, problem solving and conducting oneself effectively in a job interview and on the job). A vocational education student spends half the school day at the VoTech Center with transportation provided to and from the home school. Students are able to draw upon the resources of the VoTech's counseling staff in planning their careers and can use the Placement Service to locate the jobs of their choice. Courses are for one or two years and are taught by experienced instructors with many years of job service in their fields. Each course is designed to provide individual instruction to allow a student to learn at his or her own pace. Each teacher maintains close ties with business and industry to keep current workforce needs.

NEW VISIONS

Full year- up to four credits.

Grade 12

Requisites: 92% or higher overall average, transcript review.

New Visions programs are for the college-bound student. Students will be placed beside local professionals, giving them an opportunity to witness the translation of knowledge into performance. This educational experience provides students with the information necessary to make informed career choices. Students will also study Honors-level core curricula in English, Government and Economics. New Visions curriculum focuses on the interviewing, debating, research, writing and speaking skills that are necessary to succeed in college and in the world of work. Please see your counselor for the specific program offerings. Student transcripts will be reviewed as part of the admissions process.