

# Schuylerville CENTRAL SCHOOL DISTRICT

**High School Course Guide** 

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### **Student Services**

The philosophy of the Student Services Center is to serve each student's educational, social and personal needs. With this goal in mind, the center is made up of a team of professionals, including a career education counselor, school counselors, a psychologist and health professionals. This team works to ensure success for each student, in school and beyond.

Throughout the school year, students meet with Student Services staff members to discuss class scheduling, test scores, college admission procedures and employment aspirations. The Student Services Center is always open to discussions about such issues as peer relations, loneliness, family difficulties, drug and alcohol decisions or any other personal concerns. Students also are invited in to research colleges and careers. The Center has a wealth of materials available, including college catalogs, vocational materials, career and college databases, etc.

Students and parents are invited to call the Student Services Center at 518-695-3255, extension 2239 with any questions or concerns.

### **Staff Directory**

#### **Carrie Bean**

High School Counselor Grade 9

#### Janine O'Brien

High School Counselor
Last names A-K. Grades 10-12

#### Sarah Rust

High School Counselor Last names L-Z. Grades 10-12

#### Karen Maciariello

School Psychologist Grades 9-12

Tracy Lyon Secretary Pam Driscoll School Nurse

## **Graduation Requirements**

New York State students have access to the Local Diploma, the Regents Diploma, and the Regents Diploma with Advanced Designation. To earn a New York State high school diploma, students must meet both the credit requirements and the assessment requirements (Regents Exams). Schools and districts may create diploma requirements in addition to those required by the New York State Education Department.

#### **CREDIT REQUIREMENTS**

Enalish 4 credits Social Studies 4 credits Math 3 credits Science 3 credits World Language 1 credit Art or Music 1 credit 2 credits Health ½ credit **Electives** 5 1/2 credits Total: 24 credits

#### REGENTS EXAM REQUIREMENTS

#### Regents Diploma

In addition to successful completion of the appropriate units of credits, to earn a Regents Diploma, students must pass the following Regents exams:

- Mathematics
- Science
- World History
- United States History
- English Language Arts

#### **Regents Diploma with Advanced Designation**

In addition to successful completion of the appropriate units of credit, to earn a Regents Diploma with Advanced Designation, students must pass two additional math assessments and one additional science assessment to include:

- Mathematics (Algebra, Geometry, Algebra II)
- Science (Earth Science and Living Environment)
- World History
- United States History
- English Language Arts

To earn a Regents Diploma with Advanced Designation, students must also complete one of the three sequence options:

- Two additional credits in World Languages (for a total of three credits) and the locally developed Checkpoint B World Languages Exam
- Five credit sequence in the Arts, Music, Technology, Agriculture, or Business
- Five credit sequence in Career and Technical Education (CTE)

#### **SAFETY NET**

Students with disabilities have three safety net options available to support acquisition of the Local Diploma. Safety net options include the Low Pass Safety Net, the Low Pass Safety Net with Appeal, and the Compensatory Safety Net.

- Low Pass Safety Net: allows a student with a disability to meet the testing requirements for a local diploma by achieving a score between 55 and 64 on one or more of the required Regents Exams. This leads to a Local Diploma.
- Low Pass Safety Net with Appeal: allows a student to appeal a score of 52-54 to graduate with a Local Diploma. Students looking to appeal must meet additional criteria as outlined by NYS.
- Compensatory Safety Net: allows a student with a disability, who scores between 45-54 on one or two of the required Regents Exams (except for ELA or mathematics), to compensate the low score with a score of 65 or higher on another required Regents Exam to graduate with a local diploma.

#### **ENDORSEMENTS AND SEALS**

- A student may earn a Regents Diploma with Honors if the five required exam scores average a 90 or higher (no rounding up is permitted).
- A student may earn a Regents Diploma with Advanced Designation with Honors if the eight required exam scores average a 90 or higher (no rounding up is permitted).
- A student may earn Mastery Distinction in Math and/or Science if student's earn a minimum of 85 on each of the three Regents exams in that subject area.
- A student may earn a Technical Endorsement by completing the requirements for any diploma type (Local, Regents, or Regents with Advanced Designation) and also completing a NYSED-Approved Secondary Career and Technical Education (CTE) program that includes:
- 1. Passing a minimum of 3.5 CTE credits
- 2. Passing each part of a 3-part technical assessment (written, demonstration, project components)

#### SCHUYLERVILLE NYS CTE APPROVED AG PROGRAM

#### **Course Pathway Credit Acquisition**

Required courses will include Introduction to Agriculture and Agriculture Business and Marketing. These courses will integrate the 16 Career and Financial Management Competencies. Students are then required to select one course from the courses below, which will integrate commencement-level science standards.

- Plant Science
- Animal Science
- Wildlife and Natural Resources Science
- Food Science and Safety

Students are then required to select one additional course from the courses listed below.

- Plant Science
- Animal Science
- · Wildlife and Natural Resources Science
- Food Science and Safety
- Mechanics

Students are eligible to earn one integrated science credit, 2.5 elective credits and a half credit for CFM.

#### COUNTING ALPHA GRADES IN COLLEGE COURSES

All college credit courses that receive only an Alpha grade (A, B, C, etc.) will not count in a student's GPA or class rank. The course and Alpha grade will still appear on the student's high school transcript, and the student will still receive .5 high school credits for each college course taken. In addition, any 12th grader taking nine or more alpha-grade-only college credits per semester will be ineligible for distinction as Valedictorian or Salutatorian.

## **Dropping or Adding Courses**

For all courses, there is a posted two week add/drop deadline

All students must be enrolled in at least six credits

A request for a withdrawal after the above timeline must be made in writing by a parent/guardian, with the reasoning for the drop, to the student's School Counselor. At this time a meeting with the student, parent/guardian, teacher and School Counselor will occur. Discussions will take place about the reasoning of the withdrawal and to attempt to remedy the student's desire to withdraw. At this time, if the withdrawal is still desired by the student and family, it will be granted with the following documentation on a student's transcript based on their existing grade from the class:

W - Withdrawal

Classes that are removed from a student's schedule will be replaced with another course when possible.

#### **COURSE AVAILABILITY**

Decisions regarding which courses will be available each year will be based on student enrollment/interest and available staffing.



#### **ENGLISH 9**

#### **One-Year Course**

A comprehensive overview of a variety of literary genres, including novels, short stories, plays and poetry. Includes an emphasis on study and application of literary elements and techniques. Areas of written instruction include, but are not limited to, the persuasive essay, the comparison/contrast essay and general compositions. Focus on the process of research writing culminates in a research paper unit. Creative writing includes such items as diary entries, letters, newspaper articles and poetry. A significant amount of consideration is given to the acquisition of listening and speaking skills, including a variety of required oral class presentations.

#### **ENGLISH 9 HONORS**

#### **One-Year Course**

Prerequisites: English 8 course grade ≥93%, or English 8 teacher recommendation. A writing sample and assigned summer reading are required for admission to the course.

This class is designed for the highly motivated, self-disciplined learner who excels in reading and writing. Learners must be able to prioritize and self-organize. Requires extensive independent reading, regular written assignments and the ability to meet deadlines. Learners must demonstrate a strong grasp of grammar and usage in their writing. Homework is assigned regularly and the expectations for timely completion are demanding. Learners must possess solid organizational skills, as well as the ability to function well independently. Emphasis is placed on the study and application of literary elements and techniques. Areas of written instruction include, but are not limited to, essay-writing, research-writing (five-page paper), creative writing, report writing. Significant time is given to the acquisition of vocabulary and listening and speaking skills. Oral presentations are a must. All learners will be expected to complete short evidence-based claim papers as well as a longer, more sustained piece of research writing. This requires the ability to independently analyze the text, as well as support ideas with specific text references. Strong critical thinking and writing skills are essential for completion of this final project, as well as the course.

#### **ENGLISH 10**

#### **One-Year Course**

English 10 is a foundational course aligned with the New York State Regents and Next Generation Learning Standards. It emphasizes critical reading, evidence-based analysis, and argument development through a variety of texts, including classic and contemporary works, poetry, fiction, non-fiction, journalism, and historical documents. Assessments include text annotations, discussions, daily writing tasks, and both short and extended responses, focusing on research, drafting, revising, and publishing. Independent reading assignments enhance comprehension, vocabulary, and a love for reading.

#### **ENGLISH 10 HONORS**

#### **One-Year Course**

Prerequisite: English 9 Honors course grade ≥85%, or English 9 Honors teacher recommendation. Or, English 9 course grade ≥90%, or English 9 teacher recommendation.

Course includes all components of the English 10 course (see above), including an emphasis on British literature. However, students' literary interpretations and applications are challenged with the inclusion of synthesis and evaluation questions and assignments, which are often cross-curricular. It is assumed that students entering the honors course can already comprehend challenging literature and generate writing showing a control of standard written English with minimal errors, even with sophisticated language. This prerequisite is necessary for students to create their own literature and/or formulate opinions, judgments or decisions regarding the studied material. All students in the course are being prepared for the English Regents exam.

#### **ENGLISH 11**

#### **One-Year Course**

Focusing on American literature, course covers critical analysis of novels, poetry, short stories, drama, essays, speeches, print media and Internet sources. Readings range from classic to contemporary, across genres from science fiction to historical fiction and adventure. Writing opportunities include the traditional literary essay, creative writing, free association writing and scriptwriting, character sketches, persuasive writing and Internet research projects. Expanding vocabulary, analyzing language and varying sentence structure are covered. Course concludes with a comprehensive Regents exam in June.

#### **ENGLISH 11 HONORS**

#### **One-Year Course**

Prerequisite: English 10 Honors course grade ≥85%, or English 10 Honors teacher recommendation. Or, English 10 course grade ≥90%, or English 10 teacher recommendation.

An enriching and challenging experience in literature and writing. Literature (above grade level) will be assigned for independent

reading. Insightful, analytical writing with minimal errors in mechanics is assumed as a starting point in this class. In addition to the objectives of English 11, this course seeks to broaden student understanding of the author's craft and why a narrative of any genre is created as seen in final form. Students will be expected to sustain a devotion to quality work and a responsible commitment to deadlines. The course will conclude with a comprehensive Regents exam in June.

#### **ENGLISH 12**

#### **One-Year Course**

Units of study focus on both the college-bound and work-bound learner. Literary analysis of novels, plays, short stories and poetry are incorporated into thematic units. Writing includes literary analysis papers, essays, short answer papers, resume-writing, business correspondence and the college essay. Emphasis is placed on the acquisition of vocabulary and public speaking skills, as well as research skills using online databases and Internet sources. The course culminates in a film unit of study with an emphasis on analytical writing.

#### ADVANCED PLACEMENT ENGLISH

#### **One-Year Course**

Prerequisite: English 11 Honors course grade ≥90%, or English 11 Honors teacher recommendation. Or, English 11 course grade ≥92%, or English 11 teacher recommendation.

Focuses on a wide variety of literature with emphasis on drama, novels and poetry. Class time is devoted to discussion and analysis. It is expected that students already have superior writing skills. Writing assignments are done in the form of analytic and persuasive essays, usually with a 45-minute time limit. Advanced Placement exam will be given in May.

#### **ENGLISH 101: SUNY ADIRONDACK, INTRODUCTION TO COLLEGE WRITING**

#### **Half-Year Course**

Prerequisite: English 11, Regents final exam score of 85% or higher, or a final grade in the class of 85% or higher. Students who do not meet the college requirements can still register for the course if they pass an applicable placement exam administered by the college. English 101 and Eng 109 (when taken together) will satisfy the English 12 credit, and is an opportunity for college credit through SUNY Adirondack.

This course will include instruction and practice in the process of writing, including development and revision of various essays. Students will analyze and respond to others' writing and learn to use feedback from the instructor and peers. Assignments may include reflection on experience, exposition, and interpretation of a text. Information literacy, in the form of research and documentation, will be presented. Expect multiple reading/writing assignments and group discussions. Upon successful completion of this course, students will be able to: comprehend and analyze introductory academic texts; access and employ information from databases; evaluate sources; cite research appropriately; create a cohesive written text; develop a written work, demonstrating all stages of the writing process, and use the formal conventions of academic writing.

#### **ENGLISH 109: SUNY ADIRONDACK, CREATIVE WRITING**

#### **Half-Year Course**

Prerequisite: English 11, Regents final exam score of 85% or higher, or a final grade in the class of 85% or higher. Students who do not meet the college requirements can still register for the course if they pass an applicable placement exam, administered by the college. English 11: Regents final exam score of 85% or higher or a final grade in the class of 85% or higher. English 101 and Eng 109 (when taken together) will satisfy the English 12 credit, and is an opportunity for college credit through SUNY Adirondack.

This course will focus on expressive writing in many different forms. Students will have the opportunity to explore several types of poetry and prose styles, as well as responding to literature, art mediums, quotes, and music. Originality and writing that shows thought will be emphasized. Strategies to avoid writer's block and new ways to uncover ideas for writing will be studied. Peer reviews and sharing ideas are essential elements to this course. Course content includes writing poems, short stories, plays, news stories, comic strips, children's books, an autobiography and other types of writing that express creativity. Students will also study writing samples from professional writers as well as student writers to guide progress, including conducting research that inspires fiction writing. Learning Goals: Students will learn how to read critically as writers – to understand other writers' craft, purposes, and aesthetic choices, toward the creation of the students' own original works. Students will also have the opportunity for frequent and extensive writing opportunities guided by their teacher and supported by classmates, building upon reading and studies in order to provide an apprenticeship in the arts.

#### **JOURNALISM**

#### **Half-Year Course**

Prerequisite: This course is open to juniors who have earned a minimum final average of 85 in English 10, and seniors who have earned a minimum final average of 85 in English 11.

This half-year course immerses students in the work of print and broadcast journalists. Topics include hard news; feature writing; editorials; reviews of movies, television, restaurants, music; broadcast journalism; blogging and podcasting. Additionally, students will learn the skills of interviewers and critique the work of professional journalists. As part of this class, students will create both print and Internet publications in cooperative learning groups. Students will use Google Classroom as the primary class interface so students interested in this course should have some basic word processing and computer skills. While students are not required to have computer/Internet at home, it is recommended. Students that do not have access at home must schedule time in a school computer lab or public library outside of class regularly.

#### THE SHORT STORY

#### **Half-Year Course**

Prerequisite: This course is open to juniors who have earned a minimum final average of 85 in English 10, and seniors who have earned a minimum final average of 85 in English 11.

This half-year course is a critical exploration of the short story in its many forms. The course will survey works from classic masters (such as Chekhov, Lawrence, Poe and Hawthorne) and more modern technicians (Hemingway, Cheever, Dubus, Carver, and Lahiri). Students will also learn various models of critical studies through which to analyze the stories, including psychological analysis, gender studies, new critical studies, and liberal humanism. Class discussions will be the center of the course, with each student taking a turn in role of "expert" and "discussion leader." Students will use Google Classroom as the primary class interface so students interested in this course should have some basic word processing and computer skills. While students are not required to have computer/Internet at home, it is recommended. Students that do not have access at home must schedule time in a school computer lab or public library outside of class regularly.

#### **ELA-AIS GRADES 9-11**

The long-term goal of this ELA-AIS program is on success on the Comprehensive English Regents exam administered in June of 11th grade. Students meet in small groups every other day and receive individualized and immediate feedback on all tasks. The program is congruent with NYS Learning Standards and classroom teachers often award students extra credit for work completed in their language arts lab. ELA-AIS g is an enriched experience that assists students with the transition to the demands of high school language arts. In grade 10, the reading and writing skills introduced in grade g are expanded, refined and practiced. The goal of the 11th-grade program is either to maintain or achieve a level of competency necessary to meet the NYS Standards and students receive instruction on the tasks presented on the ELA Regents exam.

### **Social Studies**

#### **WORLD HISTORY 9 & 10**

A two-year course organized chronologically to study all areas of the world with the exception of the United States. Grade 9 covers the development of cultures and civilizations from prehistoric times through the 18th century. Grade 10 continues the course through the 19th and 20th centuries. Interaction and links among nations and peoples will be explored within specific time periods to ascertain how the past influences the present. Cultures and historical development of different geographical regions will be studied in depth. Attention will be paid to the social sciences. Focus is on reading and writing skills. Regents exam covering the content of grades 9 and 10 will be taken at the end of 10th-grade.

#### **WOLRD HISTORY 9 HONORS**

#### **One-Year Course**

Prerequisite: Minimum final course grade ≥ 93 in both Social Studies 8 and English 8, or teacher recommendations from both Social Studies 8 and English 8 teachers.

World History 9 Honors is year one of the New York State World History course requirement. This particular course will be geared towards students who hope to take World History Advanced Placement in 10th grade, but is not limited to those students. It will be formatted to align with the AP World History course but will also prepare the students for the Global History and Geography Regents exam given at the end of 10th grade.

#### ADVANCED PLACEMENT WORLD HISTORY

#### **One-Year Course**

This course will cover the origins of human civilization from its earliest times to the modern day. The Advanced Placement exam highlights six overarching themes: impact of societal interactions, change and continuity across world history periods, impact of technology and demography, social and gender structures, cultural and intellectual developments, and functions and structures of states. There will be weekly essays, exams and Document-Based Questions (DBQs) on a regular basis. Students are required to take the Advanced Placement exam in May.

#### **UNITED STATES HISTORY AND GOVERNMENT 11**

#### **One-Year Course**

Includes a chronological survey of American history in general, with emphasis on the United States from the post-Civil War era to the present. Constitutional and legal issues are explored in depth. The structure and operation of American government is covered. Focus is on reading and writing skills and analysis of historical data. A Regents exam covering the course content is taken at the end of the year.

#### ADVANCED PLACEMENT U.S. HISTORY

#### **One-Year Course**

Prerequisite for Advanced Placement U.S. History: World History 10 Honors Course Grade ≥90%, or World History 10 Honors teacher recommendation; OR, World History 10 Course Grade ≥92%, or World History 10 teacher recommendation.

A chronological study of American history from the pre-Colonial Era to the present that will emphasize the development of thinking skills used by historians and aligning with contemporary scholarly perspectives on major issues in U.S. history. Course designed to encourage students to become apprentice historians who are able to use historical facts and evidence in the service of creating deeper conceptual understandings of critical developments in U.S. history. Workload of eight to 10 hours per week of outside reading, writing and research. Can be used for graduation requirement in grade 11 only. All students are required to take the national Advance Placement exam in May. Scores of three or higher (on a five-point scale) may be accepted by some colleges for credit. Students take the U.S. History and Government Regents exam in June.

#### **ECONOMICS/PARTICIPATION IN GOVERNMENT 12**

#### **One-Year Course**

An integrated approach examining groups of people making decisions and the applications of those decisions in the developing global economy. Emphasizes fundamental communication skills, building work teams and total quality management. Current events are discussed within the perspective of which events are part of the growing trends of changing technology, greater opportunity and the expanding global capitalist society. The fall semester of Economics explores basic micro- and macro-concepts, as well as the political and social impact decisions have on our economy and world economies. Students also examine their role in our economic system as consumers, workers, investors and citizens. The spring semester of Participation in Government emphasizes the interaction between citizens and government at all levels—local, state and federal. This section focuses on participatory exercises, including discussions, seminars and group/individual reports.

#### **ECONOMIC IDEAS AND ISSUES**

## Syracuse University Project Advance Half-Year Course, ECON 203

3 College Credits

This course examines Western economic thought by starting with a one-person society and asks how this person makes choices, especially when other individuals are introduced and resources become scarce. Our journey leads us to the complex, industrialized society we live in today. Economic Ideas and Issues is an introduction to mainstream economic thought designed for students with a liberal arts interest. The goals of this course are to introduce students to the ideas that form the foundation of modern Western (neoclassical) economic thought, to examine the basic framework (the model) that economists have built on this foundation, and to show how this model is applied to current issues facing individuals and society.

#### INTRODUCTION TO THE ANALYSIS OF PUBLIC POLICY

#### **Syracuse University Project Advance**

#### Half-Year Course. PST 101

3 College Credits

Public policy. How do we shape it? How do we enact it? This course will help you answer those questions and quite a few more. In an effort to understand public policy, you'll deconstruct local, state, and international issues drawn from the pages of The New York Times; you'll develop the social science skills to define and identify policy components; and you'll use graphs, tables, and statistics to analyze and communicate your ideas. Ultimately, you'll identify a social problem and propose a policy to deal with it—defending the costs and outlining the expected benefits—becoming a more informed citizen, worker, and consumer.

## AIS UNITED STATES HISTORY AIS WORLD HISTORY

These courses are designed to give students a foundation of the basic social studies vocabulary and various elements that are a part of all civilizations. The courses will take a thematic approach to history, helping students categorize the material they learn. Students will be taught the skills necessary to be successful on each part of the Regents exam. The courses will include numerous activities designed to improve essay-writing.

### **Mathematics**

#### **ALGEBRA I**

#### **One-Year Course**

Prerequisite: Math 8 final course grade ≥75%, or Math 8 teacher recommendation.

This course is the first of the three-year program that integrates the topics of secondary mathematics. Algebra parallels the curriculum set forth by the New York State Next Generation Mathematics Curriculum. All students will take the High School Regents Exam for Algebra in June. The course topics consist of The Real Number System, Creating & Reasoning with Equations & Inequalities, Interpreting & Building Functions, and Interpreting Categorical & Quantitative Data.

#### **GEOMETRY**

#### **One-Year Course**

Prerequisites: Algebra I course grade > 76% and Algebra I Regents grade > 65%, or Algebra I teacher recommendation. Or, Pre-Geometry > 75% and Algebra Regents grade > 65% or Pre-Geometry teacher recommendation.

This course is the second of the three-year program that integrates the topics of secondary mathematics. Major topics included are standards from Euclidean geometry. Units included: congruence in terms of rigid motions, constructions, modeling, similarity and proof writing. Fundamentals of algebra introduced in Algebra I will be incorporated. The Geometry Regents exam is administered in June.

#### **PRE-GEOMETRY**

#### **One-Year Course**

Prerequisites: Algebra I course grade ≥65%, and Algebra I Regents grade ≥65%. Or, Modified Algebra IB course grade ≥65%, and Algebra I Regents Grade ≥65%.

This course is offered as a less rigorous alternative to Geometry, while still preparing students to take Geometry and the Geometry Regents the following year.

#### **ALGEBRA II**

#### **One-Year Course**

Prerequisite: Geometry course grade  $\geq$ 80%, and Geometry Regents grade  $\geq$ 65%, or Geometry teacher recommendation. Or, Pre-Algebra II course grade  $\geq$ 75%, or Pre-Algebra II teacher recommendation.

Content consists of continuing most of the concepts introduced in Algebra and Geometry. Course represents a combination of intermediate algebra, plane trigonometry, and coordinate and transformation geometry. The concepts of statistics are considered on a higher level, along with topics of logarithms and binomial theorem. Study of complex numbers, relations and functions, circular functions and transformational geometry are new concepts that are covered. The Algebra II Regents exam is given in June.

#### **PRE-ALGEBRA II**

#### **One-Year Course**

Prerequisite: Geometry course grade ≥70%, or Geometry Regents grade ≥65%, or Geometry teacher recommendation.

Course is offered as a less rigorous alternative to Algebra II, while still preparing students to take Algebra II in 12th-grade. Some algebra and geometry concepts also will be included.

#### SUNY ADIRONDACK MAT 121 PRE-CALCULUS ALGEBRA

#### **Half-Year Course**

Prerequisites: 75 or better on the Algebra 2 regents. Potential 3 college credit hours

A preparation for calculus through an extensive study of the theory of non-trigonometric functions. Function families include polynomial, rational, radical and logarithmic functions.

#### SUNY ADIRONDACK MAT 125 PRE-CALCULUS TRIGONOMETRY

#### Half-Year Course

Prerequisites: 75 or better on the Algebra 2 regents. Potential 3 college credit hours.

A preparation for calculus through an extensive study of the theory of trigonometric functions. Topics include radian measure of angles, trigonometric and inverse trigonometric functions and trigonometric identities. Highly recommended for students pursuing degrees in mathematics and/or the sciences.

#### ADVANCED PLACEMENT CALCULUS AB

#### **One-Year Course**

Prerequisite: Pre-Calculus course grade ≥80%, or Pre-Calculus teacher recommendation.

Recommended for pre-engineering students or college-bound students majoring in math. A first-semester college calculus course and some work from second semester are covered. The first half of the year covers differential calculus (finding derived functions and their application). The second half consists of the study of integral calculus (finding integrals and their application). College credit can be earned by taking the Advanced Placement exam in May.

#### SUNY ADIRONDACK MAT 127 INTRODUCTION TO STATISTICS WITH PROBABILITY

#### **One-Year Course**

Prerequisite: This course is open to juniors or seniors who have a passing grade in Geometry and on the Geometry Regents
This course is a college-preparatory course that will introduce students to the major concepts and skills used in Statistics. The students will be introduced to the tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes, including:

- Exploring data: describing patterns and departures from patterns
- Sampling and experimentation: planning and conducting a study
- Anticipating patterns: exploring random phenomena using probability and simulation
- Statistical inference: estimating population parameters and testing hypotheses

There will be quizzes and tests given after each section, as well as a test given after a block of four or five chapters. A local final will be given at the conclusion of the course.

#### **COLLEGE PREPARATORY MATH**

#### **One-Year Course**

Prerequisites: Two high school math credits (not including Math/Financial Applications or Accounting) and a passing grade on the Algebra I Regents Exam.

This course is dedicated to preparing students with the math skills needed to successfully start and finish the freshman year of college. Prior to entering college, it is likely that students will be required to take a college entry exam that will determine their placement in the appropriate college-level math course. The goal of this class is to strengthen math skills that may have become weak due to the common use of the calculator and to prepare students for success in an introductory college-level math course. Topics to be covered include algebra, geometry, simple trigonometry, probability, statistics and graphing. The course can be used as a third high school math credit.

#### MATH AND FINANCIAL APPLICATIONS

#### **One-Year Course**

Prerequisite: A passing grade on the Algebra I Regents Exam

A specialized interdisciplinary business course related to the New York State Mathematics Learning Standards. This course is designed to prepare students for both college-level business programs and to understand the complex financial world they will encounter during their lives. Topics include the study of investment options, understanding tax brackets, determining maturity dates for notes and loans, and analyzing mortgage options. For students who have successfully passed the Algebra Regents exam, this specialized course may be used to fulfill one of the three units of mathematics required for the Regents diploma.

#### MATH AND FINANCIAL APPLICATIONS II

#### **One-Year Course**

This course is designed to continue to weave real world personal finance applications to Algebra skills and build on the foundations of Math and Financial Applications I. Designed to prepare students for both college level business programs and to understand the complex financial worlds they will encounter during their lives. By the conclusion of this course, students will have a thorough understanding of personal finance topics and how they relate to algebraic concepts.

#### MATH-AIS

The goal of this class is to provide additional support for students preparing for the Algebra Regents exam at the end of ninth or 10th grade. Students meet in small groups every other day and receive individualized and immediate feedback on all tasks. Assignment to the class is determined by the eighth-grade New York State Math exam and/or teacher recommendation.



#### EARTH AND SPACE SCIENCES

#### **One-Year Course**

Prerequisite: Science 8 course grade ≥75%, or Science 8 teacher recommendation, or Applied Living Environment course grade ≥ 65% and Living Environment Regents Exam grade ≥ 65%.

Investigates processes and changes taking place on earth and how they impact humans. Areas covered include: skills in laboratory measurement, astronomy, meteorology, geology, geologic history, environmental issues and stewardship of the earth. Class meets every day, with an additional lab period every second day. Students will have to satisfy the New York State lab requirement. There will be three final exams in June: a local final exam, the Regents Laboratory exam and the Regents written exam.

#### APPLIED LIFE SCIENCE BIOLOGY

#### **One-Year Course**

Prerequisite: Science 8 course grade ≥ 65, or Science 8 teacher recommendation.

This Regents level course delivers the Living Environment curriculum in a one-year format, with a daily class period and an every-other-day lab period. The traditional Living Environment curriculum has been adjusted to promote a deeper understanding of the most important concepts. Students will strengthen their scientific literacy and generate their own explanations of key topics and concepts. The Living Environment Regents exam is administered in June.

#### LIFE SCIENCE BIOLOGY

#### **One-Year Course**

Prerequisite: Earth Science course grade ≥65%

Major topics include: the nature of life, ecology, cells, genetics, evolution, microorganisms and fungi, plants, invertebrates, chordate and the human body. Students are also required to complete the laboratory component of the course, which investigates the 10 topics above, as well as such skills as lab safety, recognizing lab equipment, making metric measurements, applying the scientific method, using the compound electric microscope and graphing. Students must successfully complete 1200 minutes of lab instruction.

#### **CHEMISTRY**

#### **One-Year Course**

Prerequisite: Concurrent enrollment in a full credit math class of Geometry or higher (eligible math courses include Geometry, Pre-Algebra II, Algebra 2, Pre-Calculus and AP Calculus).

A comprehensive and rigorous introduction to the basic principles of chemistry. Areas covered will include: skills used in mathematical and conceptual problem-solving, atomic structure, periodic table, stoichiometry, chemical bonding, physical behavior of matter, principles of chemical reactions, energy relationships in kinetics/equilibrium, oxidation-reduction and organic compounds. Students must satisfy the New York State lab requirement in order to sit for the Chemistry Regents exam. An in-class final exam and the Chemistry Regents exam will be given in June.

#### **PHYSICS**

#### **One-Year Course**

Prerequisites: Successful completion of Algebra II or concurrent enrollment in Algebra II with a Geometry Regents grade of 85 or higher. An introduction to physics concepts with an emphasis on mathematical problem-solving that includes major units on mechanics (including forces and motion), work and energy, electricity and magnetism, waves (including sound and light) and modern physics (including quantum theory, mass-energy equivalence and an introduction to particle physics). An in-class final exam and the Physics Regents exam will be given in June. Students must satisfy the New York State lab requirement in order to sit for the Physics Regents exam.

#### **ADVANCED PLACEMENT PHYSICS 1**

#### **One-Year Course**

Prerequisites: Grade of 85 or higher in Geometry and Chemistry. Students must have taken or be concurrently enrolled in Algebra II. This is a college-level, algebra based Physics course with an emphasis on motion, forces, energy, momentum, waves and electricity. The course is recommended for motivated students considering pursuing science, technology, engineering, or mathematics in college or for students who want to challenge themselves academically. There is a lab component to the course, and students will take the AP Physics 1 exam in May and the Regents exam in Physics in June.

#### ADVANCED PLACEMENT BIOLOGY

#### **One-Year Course**

Prerequisites: A grade of 85 in Regents Living Environment, successful completion of Regents Chemistry and permission of the instructor.

Students use the methods of science to become familiar with the processes of scientific investigation. They learn how to handle data, use literature and develop experiments and ideas in investigating biological phenomena. The final is the exam administered by the College Board Testing Service, by which students may earn college credits.

#### **ENVIRONMENTAL SCIENCE**

#### **One-Year Course**

Prerequisites: Two years of high school science and a passing grade on either the Earth Science Regents or the Living Environment Regents exam.

This course is designed as an alternative to Regents Chemistry or Regents Physics for those students needing a third year of science. Students will examine the most current and relevant global, state and local issues in environmental science. Topics will include global warming and climate change, air pollution, water quality, soil conservation and the various environmental implications of economic development and population growth. There will be an emphasis on local issues, such as PCBs in the Hudson River, acid rain in the Adirondack Mountains, landfills, recycling and burn plants and environmentally responsible agriculture. Additional learning opportunities may include the study of a local stream, local field trips, guest speakers and a "get involved" project that requires hands-on experience.

#### **ANATOMY & PHYSIOLOGY**

#### **One-Year Course**

A course designed to familiarize students with human anatomy and physiology. During this course, students will learn to identify all of the major systems of the body and investigate their functions. Students will develop study skills, be able tob identify medical and anatomical terms, make connections, and hone the ability to be a self-directed learner.

#### Course content:

Organization of the Body

Cells

Tissues: Four Basic Types

The Skeletal System (Charts and Skeleton)

The Muscular System

The Nervous System

The Sense Organs

The Circulatory System

Lymphatic System

The Respiratory System

The Digestive System

**Urinary System** 

Reproductive System

#### INDEPENDENT RESEARCH

#### **Three-Year Course**

Recommended start in 10th-grade.

A student-centered course allowing participants to experience science first-hand. Students choose and explore a topic of interest. The scientific method is the essence of the course. This consists of the following elements: a review of the literature, a statement of hypothesis, methodology, a presentation, conclusions, bibliographic work and footnotes. Students contact scientists and authors of articles they have studied to build relationships and eventually choose an appropriate mentor who will assist and communicate with the student via e-mail. Progress is carefully monitored to assure students are attaining the desired capabilities. Opportunity exists for students to earn college credit through the University at Albany.

## **World Languages**

#### **SPANISH I**

#### **One-Year Course**

Develops language skills involving greetings and expressions of courtesy, foods, shopping, travel and weather. Expands cultural awareness by including the art, literature, music, sports and geography. Conversational vocabulary and grammatical concepts will be thoroughly introduced throughout the course. This course is designed for students who need to achieve the first year of high school foreign language for graduation requirements.

#### FRENCH/SPANISH II

#### **One-Year Course**

Prerequisite: Must pass French I (8) or Spanish I (8) with an average of 81 or higher.

Beginning with a brief review of French/Spanish I, advanced vocabulary and grammatical concepts are stressed. Listening, speaking, reading and writing skills are emphasized for mastery in the foreign language. Cultural differences and similarities are explored and analyzed throughout the year.

#### FRENCH/SPANISH III

#### **One-Year Course**

This course is designed for advanced language students. Review of level I and II fundamentals are drilled for mastery. Emphasis is on listening, speaking, reading and writing skills. Advanced language skills, such as deductive reasoning and circumlocution, are developed. Cultural awareness is integrated throughout the curriculum.

#### **FRENCH IV**

#### **One-Year Course**

Prerequisite: Minimum score of 85 on the French III final and a course grade of 85 or higher.

An advanced study of grammar built on the Regents-level skills of level III. Listening comprehension is enhanced as the class is conducted primarily in French. Literature skills are developed by the study of a novel and short stories. Verbal skills culminate in individual student oral presentations in French. May be taken for college credit.

#### **SPANISH IV**

#### **One-Year Course**

Prerequisite: Overall average of 85 in Spanish III

Designed to enhance students' creativity, proficiency and awareness of the Spanish language and culture. All instruction is thematically introduced throughout the year and culture becomes the focus of the curriculum. Student-developed journals, compositions, short stories, poetry and presentations are used to strengthen oral and written expression. Listening and reading comprehension also are challenged through various films, documentaries, short stories and Spanish plays. May be taken for college/university credit.

#### **SPANISH V**

#### **One-Year Course**

Prerequisite: Minimum course grade of 85 in Spanish IV or permission of instructor.

Spanish V is designed to develop both composition and conversation at a more intensive level. Conducted mainly in Spanish, students will be introduced to a variety of topics meant to stimulate student interest and participation through discussions, debates and personal reactions to events and societal issues. With culture as the main focus, students will explore the many Hispanic influences that are evident in our society and discuss the similarities and differences that also exist between cultures. May be taken for college/university credit.

#### **FRENCH V**

#### **One-Year Course**

Prerequisite: Minimum course grade of 85 in French IV or permission of instructor.

French V is designed to develop both composition and conversation at a more intensive level. Conducted mainly in French, students will be introduced to a variety of topics meant to stimulate student interest and participation through discussions, debates and personal reactions to events and societal issues. With culture as the main focus, students will explore the many Francophone influences that are evident in our society and discuss the similarities and differences that also exist between cultures. May be taken for college/university credit.

### **Fine Arts**

#### **STUDIO ART**

#### **One-Year Course**

A general introduction to the aspects of two-dimensional and three-dimensional art, including use of such artistic approaches as drawing, painting, sculpture and printmaking. This course introduces students to the elements and principles, art history, and a look at contemporary trends. Course is a prerequisite for all advanced art courses.

#### **DIGITAL DRAWING**

#### **One-Year Course**

This class will explore different methods and styles used to create digital drawings with the use of the Procreate app. The class will focus on still simple and complex animation, comic book page layout, setting design, character design, and a final project which merges character and setting design. Students will create their own series of original works.

#### STUDIO IN DRAWING

#### **One-Year Course**

This course explores the different techniques, styles, and mediums involved with drawing. Students will be exposed to a variety of cultures, artists, and artistic movements. There will be a strong emphasis on color theory, elements of art, principles of design, and styles and movements from different artists. The teacher will facilitate student led discussions with a focus on art criticism and interpretation. The students will work with a wide range of mediums in the field of drawing including: pencil, pen and ink, charcoal, colored pencil, pastel and other dry mediums.

#### STUDIO IN PAINTING

#### **One-Year Course**

This course explores the different techniques, styles, and mediums involved with painting. Students will be exposed to a variety of cultures, artists, and artistic movements. There will be a strong emphasis on color theory, elements of art, principles of design, and styles and movements from different artists. The teacher will facilitate student led discussions with a focus on art criticism and interpretation. The students will work with a wide range of mediums in the field of painting which include: ink, watercolor, acrylic, and other paint mediums.

#### **3-D DESIGN IN ART**

#### **One-Year Course**

Prerequisite: Studio Art.

Students are introduced to the principles and styles of three-dimensional forms. Exploration of natural, abstract and synthetic forms through the use of traditional materials, including clay, plaster, wood, fiber, plastic and metal. Students will be introduced to the conceptual sculptural methods of addition, reduction and substitution. Students are introduced to pottery as a sculptural medium, as well as a functional medium. The processes of firing the clay in a kiln and glazing the clay will be taught, demonstrating that finishing is important in a work of art.

#### **DIGITAL PHOTOGRAPHY**

#### **One-Year Course**

Prerequisite: Studio Art or Graphic Arts. Must own a working digital point-and-shoot (preferably with manual setting capabilities) or SLR camera and be able to bring that camera to class every day. Must have daily access to a computer and to the Internet. This course introduces students to a variety of photography skills from beginner to expert. Students will learn the principles of capturing digital images that illustrate the use of elements and principles of art and design by creating portraits, still-lifes, and landscapes. Students will learn the basic skills of digital photography, including adjusting white balance, aperture, shutter speed and ISO. There are four mandatory field trips for this course that provide students with opportunities to complete advanced assignments.

#### PORTFOLIO PREPARATION AND ASSESSMENT

#### **One-Year Course**

Prerequisite: Studio Art and an additional art course. Open to juniors and seniors.

Course is designed for the more serious art student. Both teacher-directed and student-initiated projects will be included. Students' area of concentration, whether in fine or commercial arts, will be developed. Students will create a series of artwork in their area of concentration to include in their portfolios. Students must be able to work independently. Work will be exhibited. Emphasis will be placed on portfolio development. Students should have a genuine interest and motivation to create art.

#### **MIXED MEDIA**

#### **One-Year Course**

Prerequisite: Studio Art.

This course will provide upper level art students opportunities to explore many different art mediums, such as printmaking, jewelry making, and sculpting from clay, wood, plaster and found materials. Students will also learn to manipulate clay on the potter's wheel to create sculptural and functional objects. They will be encouraged to try different mediums and art disciplines to discover a direction that is personally exciting for them. Students will be able to choose from the concepts learned to find a particular medium to explore in depth.



#### **SENIOR CHORUS**

#### (Half-Credit) One-Year Course

Senior Chorus is made up of students in grades 9 through 12. This chorus meets two or three times a week for the entire school year. Students are required to perform in the winter, spring and pop concerts. Students also will participate in voice lessons. Students learn the fundamentals of singing, as well as sight-reading. Individual students may be chosen to participate in the New York State School Music Association Solo Festival Competitions.

#### **SYMPHONIC BAND**

#### **One-Year Course**

Prerequisite: Elementary Band, Middle School Band and permission of instructor.

Students meet two to three times per week for rehearsals and are expected to perform in the winter and spring concerts. Students also participate in group instrumental lessons. One credit is earned for each year of participation. Senior band members can attend adjudication festivals to obtain New York State solo ratings, which are then used to determine selection to All-County and All-State Concert Bands.

#### **JAZZ ENSEMBLE**

#### (Half-Credit) One-Year Course

Prerequisite: Ability to read music and permission of instructor by audition.

Students meet two to three times per week for rehearsals and are expected to perform at public performances throughout the year. Students must be enrolled in band and be taking lessons for their instrument(s). Exceptions are given for guitar, bass and piano (those students must be studying privately on their respective instruments). All members must read music (guitar/bass tablature is not reading music). Course will entail performance, history, listening and research of a wide variety of jazz music styles. Members may attend festivals to obtain New York State solo ratings, which are then used to determine selection to All-County and All-State Jazz Ensembles.

#### **RECORDING STUDIO**

#### **One-Year Course**

Prerequisite: Permission of instructor.

Students will learn the fundamentals of recording technology, gaining understanding and application skills to use recording techniques in the academic and practical realms. Students will have hands-on experience with microphone placement, microphone types, recording and mastering, editing and CD production. Students will be expected to record music department performances during evening performances throughout the year. Course offered every other year.

#### INTRO TO MUSIC/ADAPTIVE MUSIC

#### **One-Year Course**

General education students will participate with life skills students in all activities. Students who participate in this class for the entire school year will receive a ½ credit in music.

This class is open to all life skills students as well as general education students. General education students will help to plan and teach lessons for the class that will include: dancing, working with instruments, singing, and using iPads to create music and videos. Music concepts that will be focused on: singing a varied repertoire of music alone and with others, performing alone and with others on instruments, improvisation, composing, and listening and describing a various repertoire of music.

#### **PIANO LAB**

#### **One-Year Course**

This course is designed for students to learn basic piano skills in a group setting; it is also designed for the student with little or no experience playing the piano. However, students must be able to read treble and bass clef music and basic rhythm patterns and be able to practice independently. While learning piano playing skills, students will acquire knowledge in the elements and theory of music. The history of the keyboard instruments and composers will be studied as well. Students will be given instruction in the fundamental elements, techniques, and procedures of beginning piano music.

### Health

#### **HEALTH**

#### (Half-Credit) One-Year Course

Designed to enable and empower students to make healthy lifestyle choices, this year-long course is goal-oriented and skills-driven. It provides students with opportunities to develop and apply healthy practices to enhance physical, mental and emotional well-being. Topics of study include self-management, relationship management, goal-setting/planning, decision-making, communication skills, stress management, nutrition and physical activity, accident/injury prevention, first aid, HIV/AIDS and addiction.

## Physical Education

#### PHYSICAL EDUCATION

#### (Half-Credit) One-Year Course, Grades 9-12

Required for all students. Course is graded Pass/Fail.

Physical Education focuses on the benefits of leading a healthy lifestyle. The outcomes include components of lifelong personal wellness and the social-emotional factors that contribute to leading an enjoyable life. Skill acquisition and tactical strategies will be explored through different opportunities of small-sided games, such as basketball, handball, broomball, volleyball, and flag football, in addition to racquet sports, such as badminton, pickleball, and tennis.

#### PHYSICAL EDUCATION II: COMPONENTS OF PHYSICAL EDUCATION

#### (Half-Credit) One-Year Course, Grades 10-12

Required for all students. Course is graded Pass/Fail.

This course is designed to provide students with knowledge and understanding of how to train individually for lifelong health and fitness. Students will be taught many different components of fitness, strength building and cardiovascular endurance. Through progressions, each student will be able to work to the best of their ability. Purposeful activities and workouts are designed to improve energy systems, power/explosiveness, muscular strength, muscular endurance, flexibility/mobility, and general body movement through practical application. Traditional PE activities will be implemented throughout the school year to complement the Functional Fitness training.

### **Business**

#### **ACCOUNTING**

#### **One-Year Course**

Introduces basic accounting concepts and progresses through the accounting cycle. Students work both manually and on the computer with journals, ledgers and accounts. Students will have a complete understanding of financial statements along with adjusting and closing entries for the accounting cycle. Course counts in a math sequence after passage of the Algebra Regents exam.

#### **BUSINESS AND PERSONAL LAW**

#### **One-Year Course**

This course is designed to provide students with an overview of our legal system. This includes statutes and regulations that affect businesses and individuals in a variety of ways. Knowledge of our laws and how they are applied is particularly useful because all students eventually assume the role of citizen, worker and consumer in society. They will study topics on tort law, contract law, employer-employee relations, insurance, real estate matters and consumer protection laws. This course also teaches the difference between criminal and civil law, covering trial procedures for crimes versus torts.

#### SPORTS ENTERTAINMENT/SPORTS LAW

#### **One-Year Course**

Students will evaluate the marketing strategies used by successful sports and entertainment marketing firms. Includes investigation of Internet marketing and discovering how the Internet is a major tool for today's marketers. Course also explores some common myths that surround advertising and promotion in the sports and entertainment field. Examines legal and ethical issues that exist in the industry. Sports Law is the application of a variety of legal doctrines to a range of sporting activities. Areas of the law include, but are not limited to, contracts, labor law, collective bargaining, discrimination, employment, torts, crimes and constitutional and common law. New issues arise on a daily basis due to court decisions, new legislation and regulations.

#### SUNY ADIRONDACK: INTRODUCTION TO PERSONAL ECONOMICS

#### Half-Year Course, ECO 101

3 College Credits

Introduction to Personal Economics This course introduces students to the subject areas needed to manage their economic future. Students are introduced to the US economic and financial systems, financial planning, banking, consumer credit, retirement planning and investing, health insurance, and risk management. This semester long course is open to Juniors and Seniors with a GPA higher than an 80.

#### SUNY ADIRONDACK: PRINCIPLES OF MARKETING

#### Half-Year Course, BUS 103

3 College Credits

This course covers the history of marketing and development of current marketing practices. Emphasis is on the marketing concept and the decision-making process. Includes practical applications designed to develop student interest in the field of marketing. This semester long course is open to Juniors and Seniors with a GPA higher than an 80.

## Senior Internship

#### **GENERAL INTERNSHIP PROGRAM**

#### **One-Year Course**

Open to seniors only. The program consists of placing a student in appropriate work sites for a minimum of 1.5-2 hours a day for two-three days a week. Students will be consulted as to what work experience areas they would like to explore; however the final placement decisions will be determined by the career education coordinator and the availability of participating businesses. Students are not paid for this work experience and must provide their own transportation. Participants are excused for up to three periods and can earn .5 to 1 full credit.

### **Agriculture**

#### INTRODUCTION TO AGRICULTURE, FOOD, & NATURAL RESOURCES

#### **One-Year Course**

Students participating in the Introduction to Agriculture, Food, and Natural Resources course will experience hands-on activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data and work in teams.

#### **ANIMAL SCIENCE**

#### **One-Year Course**

Prerequisite (one of the following): Living Environment, Earth Science, Modified Living Environment I, Ag Science I.

This course engages students in hands-on laboratories and activities to explore the world of animal agriculture. Student experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection and marketing. For example, students will acquire skills in meeting the nutritional needs of animals while developing balanced, economical rations. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets. College credit opportunity through SUNY Cobleskill.

#### ADVANCED ANIMAL SCIENCE & VETERINARY MEDICINE

#### **One-Year Course**

Prerequisite: Animal Science

Building upon the knowledge learned in Animal Science, students in Advanced Animal Science and Veterinary Medicine will dive deeper into the world of animal anatomy & physiology, nutrition, reproduction, genetics and health. Students will focus on identifying and treating nutritional, reproductive and genetic diseases as well as diagnosing and treating orthopedic traumas. They will make connections between animal care and the overall health of an animal. The second half of the course will be tailored to providing students with practical skills involving physical exams, animal hospital procedures, managing medical records, overseeing patients and the laws and ethics that drive veterinary medicine. College credit opportunity through SUNY Cobleskill.

#### AGRICULTURAL BUSINESS AND MARKETING

#### **One-Year Course**

All students enrolled will be added to FFA.

This course will help students build a strong knowledge base of the agribusiness and agricultural communications industry as they study agribusiness types, business management, financial analysis, business communications, agricultural law, leadership and teamwork, ethics, and agricultural economics. This course is a unique opportunity for students interested in combining a passion for food, agricultural and natural resource sciences with fundamental real-world skills in business and marketing communication. College credit opportunity through SUNY Cobleskill.

#### AGRICULTURAL MECHANICS

#### **One-Year Course**

Agriculture Mechanics is a lab-based course designed to provide students with introductory level experiences in selected major areas of agricultural mechanics technology which may include; woodworking, agricultural structures, electrical wiring, electrical, and welding processes. Students will also learn power equipment operation and maintenance. Learning activities include information skill development and problem solving. Classroom and lab activities are supplemented through FFA supervised agricultural experience, leadership programs and activities.

#### **FOOD SCIENCE**

#### **One-Year Course**

This hands-on course is designed to introduce students to food systems, products, processing and safety. From learning about local and global food systems to the pathogens that impact food quality and exploring how to process some of the most common local foods such as maple syrup and cheese, students will learn first hand the role that food production has in the world around us. This course is a great opportunity for students interested in studying food science and agricultural production and processing to get real world experience within the agricultural industry. College credit opportunity through SUNY Cobleskill.

#### **PLANT SCIENCE**

#### **One-Year Course**

Prerequisite: Biology, Earth Science or Ag Science I.

This course teaches students the form and function of plant systems. Students experience various plant science concepts through inquiry-based exercises filled with activities, projects, and problems utilizing laboratory and practical experiences. Student experiences will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agricultural and horticultural production. Students will discover the value of plant production and its impact on the individual, the local, and the global economy. College credit opportunity through SUNY Cobleskill.

#### WILDLIFE AND NATURAL RESOURCE MANAGEMENT

#### **One-Year Course**

Wildlife and Natural Resource Management is a science course that delves into the environment, natural resources, ecosystems, soils, land use, environmental chemicals, water, and air quality. Additionally, this course includes instruction on the history of wildlife management, ecological concepts, habitat assessment, habitat management techniques for wildlife, population dynamics, predator-prey relationships, wildlife species biology, and identification. Human-wildlife interactions are studied and the roles of laws and other regulations are discussed. Students will work to problem-solve various current event scenarios supported by laboratory activities.

## **Technology**

#### **DESIGN, DRAWING & PRODUCTION**

#### **One-Year Course**

Design, Draw and Production is an introductory course which emphasizes critical thinking and problem solving by requiring students to examine technological solutions, learn technical drawing, explore design techniques, and become critically active in evaluating personal work and the work of others. This course will provide students with an opportunity to express themselves and display their talents in a variety of ways. Students will produce drawings and projects on their own as well as assigned exercises. Students will use sophisticated computer modeling and design software while developing a design proposal and making a model or prototype. This course will lay down a foundation of concepts and skills that combine the arts and sciences to foster creativity and promote innovation in today's society. This course will prepare students for further study in STEM courses as well as upper level art electives.

#### ARCHITECTURAL DESIGN

#### **One-Year Course**

Recommended for grades 10-12. An introductory course for drafting and design in the area of architecture. Students will use traditional drafting equipment, as well as computer software (Autocad and Chief Architect). Topics include two- and three-dimensional drawings, computer-aided design and careers in architecture. Students will study residential and commercial buildings, which will include room planning and design, floor plans, elevations and scale modeling. Students also will be introduced to residential construction.

#### **TECHNICAL TRADES**

#### **One-Year Course**

Offered for students in grades 10-12, this course offers a wide variety of technical skills that can be used in everyday life. The culmination of units will introduce students to different career topics, as well. The course is structured as four 10-week units covering: electricity and electronics; residential structures/construction; plumbing and HVAC; and materials processing.

#### PRINCIPLES OF ENGINEERING

#### **One-Year Course**

Prerequisites for grades 10 and 11: Design and Drawing for Production and Algebra or above. Grade 12 prerequisite: none. Survey course to help students understand engineering and technical careers. Students are exposed to several different content areas, including, but not limited to, energy, electricity, alternative energy, strengths of materials, hydraulics, pneumatics and mechanical systems. Through theory and projects/lab work, students experience the basics of engineering and technical careers.

#### **DIGITAL DESIGN**

#### **One-Year Course**

Students will learn and apply the fundamentals of various software applications (including Corel Draw X6, Illustrator and Photoshop). Image editing, drawing and graphic design will be used to develop product. Students will engage in challenging real-world projects that are typical of the graphic design industry. Students will often work in teams, but will also be expected to complete individual assignments. Classroom activities will include research, problem solving, and multimedia/graphic design projects. Students will use various pieces of equipment and software including scanners, digital cameras, tablets, printers, vinyl cutters and the laser engraver.

#### INTRODUCTION TO COMPUTER SCIENCE

#### **One-Year Course**

Introduction to Computer Science will introduce students to the foundational concepts of programming and computing. Students will engage with computer science for creative projects that work on their communication, collaboration, and problem-solving skills. Through the course, students will learn how to build their own websites, apps, games, and devices.

### **Distance Learning**

The Distance Learning Network connects up to four school districts at the same time into a single electronic classroom via "real time" video conferencing technology. Each year, a limited number of courses are available to our students via distance learning, enabling our students to take courses that would not normally be available to them at school.

#### ADIRONDACK HISTORY

#### Half-Year Course

This course studies the region called the Adirondacks. We study the geographical region as a case study to learn what affects the development of a region and more specifically what makes it thrive and decline. The Adirondacks is a unique environment that contains more; lakes, streams, rivers and wetlands than almost any other geographical region in the world. It is also the largest park in the lower 48 states and one of the only parks in the nation where half of the land is either publicly or privately owned. The course studies the region through chronological geography from the native peoples to the present day. In doing so we discover many aspects of the region's history.

#### **AP PSYCHOLOGY**

#### **One-Year Course**

Prerequisite: Must be a junior or senior in good standing and capable of handling Advanced Placement-level work. Students must be able to work independently.

The purpose of this course is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. The course content will be integrated with case studies, experimentation and student research. This course culminates in an Advanced Placement examination in psychology, which enable students to receive college credit for high performance on the test. Students will be required to take the AP exam.

#### **ASTRONOMY**

#### **Half-Year Course**

Prerequisite: Course is for juniors and seniors. Counts toward third science credit requirement for graduation.

This astronomy course is designed to have students learn more about the solar system, galaxy and universe than was covered in Earth Science. Students will learn about motions in the heavens, including planets, our moon, stars and more. Lecture will focus on stars and galaxies leading to exploration of modern cosmology. Taught at a college level with a computer-simulated lab built into the course.

#### **BUSINESS LAW (FULTON-MONTGOMERY COMMUNITY COLLEGE)**

#### **Half-Year Course**

This course is designed to introduce students to the substantive legal areas of constitutional law, crimes, torts, common law contracts, sales contracts, and commercial paper, as they apply to their personal lives and the business environment. The interaction of business ethics and the law is also examined.

#### PRINCIPLES OF BUSINESS (FULTON-MONTGOMERY COMMUNITY COLLEGE)

#### **Half-Year Course**

Prerequisite: Students must be in grades 11 or 12 with a minimum overall average of 80 or higher.

This course introduces students to the exciting world of business. This course covers topics including, but not limited to: entrepreneurship, marketing, management, human resources, economics, accounting, and finance. Additionally, this course is designed to introduce students to systems, techniques and best practices that will help students to be successful in business courses and their careers. Students may earn 3 college credits from Fulton-Montgomery Community College.

#### **FILM STUDIES**

#### **Half-Year Course**

Film Studies is an introductory course that teaches movies as visual narratives. Students also analyze and study all of the language systems of film (e.g. photography, editing, sound, acting, story, writing, ideology, etc.). In studying these valuable tools that filmmakers use, students better understand how movies are constructed and appreciate the criteria necessary to make a film. The course is primarily a genre study course as students study important film movements and types of films. The final exam grade for the course is a 10-minute presentation of a 5-minute movie clip chosen by the student that exemplifies excellence in filmmaking. The student will explain the artistic and technical merits of the film based on the skills learned in the course.

#### HISTORY OF SPORT

#### **One-Year Course**

This Social Studies elective class will examine the development of sport(s) in America as well as throughout world history. Our historical study will focus on helping students gain a better understanding of the inner relationship that sport has on social, economic, cultural and political forces that are at work in the United States as well as the world. We will examine the historical context as well as the significance of gender, race, ethnicity and social class. We will do our historical investigation through readings, primary sources, audio and visual materials as well as class discussions and guests. We will unlock the mystery "hold" that sport has on the American public through our analysis and discussion. Students will gain historical knowledge about the historical origins and development of various sports in America as well as worldwide, major political, social, cultural, economic, and intellectual concepts throughout chronological history of sport. Students will understand why and how sports have become a popular cultural phenomenon. Students will also learn a greater appreciation for the issues that have affected sports such as gender, discrimination, race bias, and class economics. Students will also begin to recognize the influence that commercialization has within the sports world.

#### HISTORY OF WORLD WAR II

#### Half-Year Course

This course will explore the origins of World War II, the war itself and the final outcome. It will not study World War II from a US perspective but from a world perspective. Events will be covered that are often neglected but had important historical and political ramifications for particular regions of the world. World War II is an event that radically changed the world and had an effect on every region of the globe. Many nations still had cavalry units at the start of the war and by the end of the war one nation used a nuclear weapon and another introduced jet aircraft as well as missiles. The war also exposed the evils of man on an unprecedented scale as well as the charity of nations who learned from past mistakes. Many nations won and lost their independence because of the war. At its birth it was called the "Phony War", by its end; World War II was the event that shaped the 20th century.

#### MARINE SCIENCE

#### **One-Year Course**

Prerequisite: Regents Living Environment and Regents Earth Science; for juniors or seniors.

Class is about the ocean and ocean life. Students will explore the history of the ocean, marine environments, bacteria, algae, marine plants, marine invertebrates, marine worms, fishes and marine reptiles, birds and mammals. Course includes hands-on projects, computer-based projects, and traditional lecture-based instruction. Students also will participate in virtual field trips.

#### **METEOROLOGY**

#### **Half-Year Course**

Difficulty of course should limit enrollments to juniors and seniors but exceptions will be considered. Counts toward third science credit requirement for graduation. Course will focus on weather systems, including some of the physics that determine how they form and move. Class also will cover severe weather, basics of forecasting, how oceans affect weather, weather maps and such large-scale events as El Nino. Students will take quizzes, do reading/homework assignments and turn in a final project on basic forecasting.

#### MODERN COSMOLOGY

#### **Half-Year Course**

Prerequisite: Course is for juniors or seniors. Astronomy is offered in the Fall semester and is encouraged but not necessary. Counts toward third science credit requirement for graduation.

Go beyond the solar system and learn about what lies in our galaxy and our universe! We will study the theories and datagathering that scientists have come up with to describe the organization of our universe and its origin. We will also look at how scientists discover exo-planets and study the possibility of life on other planets. We will discuss why scientists believe in black holes, dark matter, and dark energy.

#### SPEECH AND DEBATE

#### **Half-Year Course**

This one semester course provides an opportunity to study fundamental speech techniques and to apply these techniques to individual speaking situations and various debate formats. Students will explore current issues in order to write and present speeches and debates for performance within the class. Speeches and debates include humorous and dramatic interpretation, original oratory, exposition, and persuasion. This course increases student skills in the following areas: listening, critical thinking, public speaking, argument formation and refutation, and research.

#### THEORETICAL PHYSICS

#### **Half-Year Course**

Prerequisite: Course is for juniors or seniors. Counts toward third science credit requirement for graduation.

Hollywood Sci-fi films often utilize some ultra cool but unbelievable technologies that blow our minds! In this class, we will study if any of it will ever be possible. We will look at some modern theoretical physics ideas on deep space travel, time travel, lasers as weapons, dark energy, and more! Dr. Michio Kaku's TV show "Physics of the Impossible" is a huge inspiration for this class and we will study a lot of his ideas as well as research others as we explore the future of human achievement.

### **BOCES**

Prerequisite for all BOCES courses (except Service Level): Successful completion of two credits in each subject area: English, Social Studies, Math and Science.

#### CAREER AND TECHNICAL EDUCATION PROGRAMS

#### **AUTO BODY REPAIR**

Two-year program based on automotive service excellence task lists for painting and refinishing and non-structural analysis and damage repair. Includes safety; use of computers, tools and technology; body alignment, dent removal, welding, painting, refinishing, trim, glass work and shop operations. Students use state-of-the-art paint booth and work on vehicles owned by real customers.

GOAL: Post-secondary education and entry-level employment as an auto body technician, vehicle reconditioner, estimator, or vehicle refinisher.

#### **AUTOMOTIVE TECHNOLOGY**

Program based on automotive service excellence task lists for brakes; electrical and electronic systems; engine performance; steering and suspension. Includes latest technology to build diagnostic and repair skills. Students work with computers and high-tech equipment and repair vehicles owned by real customers. Two-year program.

GOAL: Post-secondary education and entry-level employment as an automotive technician, estimator or shop manager.

#### **CONSTRUCTION TRADES**

Two-year program based on the National Center for Construction Education and Research (NCCER) ContrenTM Learning Series. Includes standardized construction, maintenance and pipeline curricula for more than 40 crafts. Students learn all aspects of residential construction, from safety and materials to blueprints and project management.

GOAL: Post-secondary education and entry-level employment as a carpenter, construction laborer/manager, front-line supervisor, carpenters helper, cost estimator, painter, or brickmason.

#### COSMETOLOGY

This two-year, 1,000-hour program prepares students for current and emerging careers in natural hair styling, esthetics, nail specialty and cosmetology. Combines crucial elements of art, science, technical skills, interpersonal skills and entrepreneurship. Students participate in actual operation of a full-service salon, catering to real customers to gain management and customer service skills.

GOAL: Post-secondary education and entry-level employment as a cosmetologist/stylist, product representative/demonstrator, or nail technician.

#### **CRIMINAL JUSTICE STUDIES**

Based on the education and training objectives set forth by the International Foundation for Protection Officers (IFPO). Program promotes philosophy of prevention rather than apprehension. Covers terrorism, VIP protection, homeland security, emergency planning, disaster control, crowd control, law, crisis intervention, public relations and professional ethics. Students participate in mock trials, crime scene investigations, forensics, budget development and writing police reports. Two-year program.

GOAL: Post-secondary education and entry-level employment as a security/protection officer or corrections officer.

#### **CULINARY ARTS AND HOSPITALITY**

Implements the ProStart® Program, a two-year industry-based program that prepares students for careers in restaurant and food service careers. Curriculum includes kitchen basics, preparing and serving safe food, nutrition, breakfast foods, sandwiches, salads, fruits and vegetables, potatoes and grains, desserts, meat, poultry, seafood, stocks, soups and sauces. Incorporates skills in business math; standardized accounting practices; purchasing/inventory; customer relations and food service, lodging, tourism and retail industries. Students participate in front- and back-of-the-house operations, menu planning, food and cost control and hospitality marketing.

GOAL: Post-secondary education and entry-level employment as a line cook, assistant chef, head waiter/waitress, banquet/catering staff.

#### EARLY CHILDHOOD EDUCATION

Focuses on developing skills in early childcare and education professionals. Provides the opportunity to work with three- and four-year-olds in a preschool. Students learn to establish and maintain a safe, healthy learning environment while nurturing the physical, intellectual, social and emotional development of the young child. Participants also learn to provide guidance and promote positive and productive relationships with families. This two-year program is based on Child Development Associate (CDA) competencies and requirements.

GOAL: Post-secondary education and entry-level employment in a day care or preschool.

#### **ENVIRONMENTAL CONSERVATION & FORESTRY**

This is a two-year program that aligns with the Society of American Foresters Programs in Forestry Technology standards and procedures. Students spend 75% of their time outdoors in "land labs." The program emphasizes forest ecology and silviculture, forest management, woods safety, forest land usage, forest protection, fish and wildlife management, forest recreation, trends in urban forestry, and current and emerging environmental conservation issues.

GOAL: Post-secondary education and entry-level employment in the forestry/logging industry, or as a heavy equipment operator or commercial truck driver.

#### **GRAPHIC & VISUAL COMMUNICATIONS**

Students use state-of-the-art computer and digital equipment to create websites, brochures and videos. Instruction includes the basics of layout and design for all mediums (television, print, Internet), digital photography and illustration, audio and video editing and animation. This two-year program provides comprehensive instruction in such applications as QuarkXpress, Photoshop and Illustrator. Students also gain the necessary skills for building, maintaining and growing client relationships.

GOAL: Post-secondary education and entry-level employment as a digital pre-press operator, ad designer, or web designer.

#### **HEALTH OCCUPATIONS**

Two-year program that offers the nurse assisting curriculum in year one and health occupations (including medical assisting) in year two. Nurse Assisting covers skills in basic nurse assisting, medical terminology, safety, body mechanics, symptoms of health and disease, infection and control, patient care, holistic health, consumer rights, ethical and legal issues and communications. Health Occupations covers medical office management, office communication, organization, records management, patient database management and performance of some patient care. Students are in clinical settings at hospitals, nursing homes, physicians' offices, clinics, insurance companies and community agencies.

GOAL: Post-secondary education and entry-level employment as a medical assistant, nursing aide, personal/home health aide, orderly, or attendant.

#### HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION (HVAC&R)

Two-year program is aligned with current HVAC excellence modules relevant for this geographic area and industry needs and trends. Students learn skills necessary for installation, service and repair of heating, air conditioning and refrigeration systems in residential and commercial applications. Integrates shop operations, job planning and estimating, customer service and ethics, while emphasizing Environmental Protection Agency (EPA) regulations.

GOAL: Post-secondary education and entry-level employment as an HVAC technician, HVAC installer, or appliance repair person.

#### **HEAVY EQUIPMENT MAINTENANCE AND OPERATION**

Students learn to operate, maintain, diagnose and repair construction-related equipment, such as backhoes, bulldozers, bucket loaders, excavators, dump trucks and hydraulic systems. Curriculum includes safety, diesel engine theory, diesel engine overhaul and hydraulic systems. Two-year program is based on National Center for Construction Education and Research (NCCER) ContrenTM Learning Series for Heavy Equipment Operations.

GOAL: Post-secondary education and entry-level employment as a mechanic, commercial truck driver, or construction laborer.

#### **HORSE CARE**

Includes training of standardbred horses for racing, using all related tack and equipment. Encompasses equine systems and physiology, nutrition, health, disease, emergency medical care and stable management. Students learn about bloodlines, breeding, purchasing, selling, daily care of horses, safety, handling of horses and breaking yearlings. Participants spend a majority of their time at the Saratoga Equine Sports Center. Two-year program is aligned with the U.S. Trotting Association (USTA) requirements for basic licensing as a trainer/driver.

GOAL: Post-secondary education and entry-level employment as a groom or hot walker.

#### HORTICULTURE. LANDSCAPING & FLORAL DESIGN

Two-year program that integrates contemporary knowledge, skills and trends in horticulture, landscape design, greenhouse production, floral design, retail sales, merchandising and shop management. Curriculum covers botany, soil science, plant propagation and integrated pest management. Students design landscaping for some of the area's finest gardens and see their vision grow from start to finish. Education centers operate student-run greenhouses and on-site floral shops.

GOAL: Post-secondary education and entry-level employment as a groundskeeper; crop, nursery or greenhouse worker; retail florist; floral designer; or landscaping assistant or apprentice.

#### WELDING

Covers industrial welding levels I, II and III; oxygen/acetylene welding; MIG and TIG welding; basic rod identification and use; and layout and design. Program integrates safety, blueprint reading, electrode selection, joint design, rigging, metallurgy, technology and welding detail drawings. Two-year program based on the National Center for Construction Education and Research (NCCER) ContrenTM Learning Series for welding.

GOAL: Post-secondary education and entry-level employment as a welder, burner, brazer, iron worker, sheet metal worker, or apprentice.

# CAREER AND TECHNICAL EDUCATION SERVICE-LEVEL PROGRAMS

#### **HOSPITALITY AND HUMAN SERVICES**

This is a career exploration program designed to introduce students to various CTE programs and corresponding careers available to them, while emphasizing the development of soft skills and the world of work. The program is designed to explore career clusters within the Health and Human Services field, as a vehicle to engage, interest, and prepare students for success at work, school, and in the community. These CTE trade areas are used as a vehicle to deliver soft skills curriculum and engage students in planning a career path. This program is open to student a grades 11 and 12. Topics include, but are not limited to:

- · Preparing for a successful career with a focus on career exploration, education and training
- · The importance of service with a focus on customer satisfaction and affective communication
- Problem solving and critical thinking skills with a focus on making effective decisions, developing creative and alternate solutions, resolving conflicts and stress management techniques
- · Technology applications with a focus on technology tools specific to the health and human services career clusters
- Business systems with a focus on quality control systems, organizational roles within teams, and organizational policies and procedures
- Safety and health concepts
- Leadership and teamwork concepts
- First aid and CPR concepts and certification
- English language arts and math

GOAL: Independent employment.

#### **TECHNICAL AND TRADE SERVICES**

These programs are open to students in 11th and 12th grade, and are designed to explore career clusters within either the hospitality and human services field, or the technical and trade services field. The courses are designed as a vehicle to engage, interest, and prepare students for success at work, school, and in the community. These CTE trade areas are used as a vehicle to deliver work-readiness credentials and engage students in planning a career path. For students in Hospitality and Human Services, focus is placed on Caretaking and Hospitality. For students in Technical and Trade Services, focus is placed on Trades and Mechanical Basics, as well as Distribution and Materials Handling.

**GOAL: Independent employment** 

#### **NEW VISIONS**

#### **NEW VISIONS HEALTH CAREERS EXPLORATION**

One-year program in which students learn and work in a hospital setting with a wide range of healthcare professionals, including physicians, nurses and physical therapists. Students receive classroom instruction two days per week and attend clinical rotations in different health professions three days per week. Program located in Wesley Health Care Center and Glens Falls Hospital; rotations occur at these facilities and at private practices and clinics throughout the Saratoga and Glens Falls areas. See WSWHE BOCES Career and Technical Education program guide for details on requirements and credits.

**GOAL: Post-secondary education** 

#### EARLY COLLEGE CAREER ACADEMY

#### ADVANCED MANUFACTURING

Students in this two-year program will receive a mix of college-level courses, job skills and technical education that will help train them to work in the advanced technical field of manufacturing. BOCES educators and SUNY Adirondack professors will provide students with a trans-disciplinary environment that encompasses all learning styles and individual strengths. This course will also provide students with work-based learning experiences such as internships, job-shadowing and mentorship. Upon completing the Advanced Manufacturing program, students receive 4 nationally recognized industry credentials. Students will also earn up to 28 tuition-free college credits toward an Associate in Applied Science (AAS) degree in Electrical Technology. Students in this career can go on to be Manufacturing Technicians, Industrial Engineers, Industrial Product Managers, Fabrication Specialists, Research Analysts, and Quality Control Managers.

GOAL: Earn college credits & industry credentials.

#### **EARLY COLLEGE CAREER ACADEMY (CONTINUED)**

#### **BUSINESS ENTREPRENEURSHIP**

Students in this two-year program will engage in a combination of college courses, technical education and job skills related to the field of business and entrepreneurship. Students are dually enrolled in high school and SUNY Adirondack, Wilton Center, as a non-matriculated student for this two-year program. Upon completion, a student is eligible to earn up to 26 college credits toward one of the following degrees:

- Associate in Applied Science (AAS) in Accounting, Management, Marketing and Entrepreneurship, or Hospitality and Tourism Management.
- Associate in Science (AS) degree in Business Administration.

Students successfully completing this high school program qualify to work in the fields of: Entry-Level Business Administrator, Entry-Level Business Management (including Retail), Entry-Level Marketing, Sales & Human Resources.

#### I.T. COMPUTER NETWORKING

Students in this two-year program have the opportunity to learn job-ready skills and earn free college credits toward a technology degree. Courses in Science, Technology, Engineering and Math (STEM) are taught by Cisco Systems trained SUNY Adirondack professors and BOCES educators through a collaborative approach. This course devotes equal time to hands-on learning in state-of-the-art labs and classroom instruction with provided computers and laptops. I.T. Computer Networking students are trained as part of the Cisco Networking Academy at SUNY Adirondack and receive a Cisco Certified Entry Networking Technician (CCENT) license along with 2 other nationally recognized certificates upon graduation. Students will earn up to 28 tuition-free college credits toward an Associate in Applied Science (AAS) degree in I.T. Computer Networking. Students in this career can go on to be I.T. Support Specialists, Network Support Technicians, Computer Support Specialists, Computer Programmers, System Analysts & Managers, and Customer Service Specialists.

GOAL: Earn college credits & industry credentials

#### **NEW MEDIA**

This two-year program combines the strengths of the SUNY Adirondack Media Arts program and the WSWHE BOCES Graphic & Visual Communications program. The New Media program exposes students to graphic design, photography, and video editing and production, as well as communications theory and practice. It blends art, technology and soft skills through a highly integrated, hands-on curriculum. Students will become versed in industry standard software (Adobe Creative Suite), have opportunities to work with/design for local non-profit agencies, and learn project management skills. Upon completion, a student is eligible to earn up to 32 college credits toward an Associate in Applied Science (AAS) degree, a SUNY Adirondack Media Arts Certificate, three industry-recognized Adobe Certifications, and an Adobe Certified Associate (ACA) Certificate. Students successfully completing this high school program qualify to work as: Graphic Designer, Photo Editor, Digital Lab Technician, Entry-Level Web Designer, Freelance Artist.

