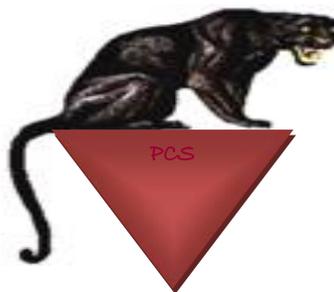


PLANNING FOR SUCCESS

**Course descriptions at
Portville Central School**



The Counseling Department

COURSE DESCRIPTIONS

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ART

Studio Art

This is an introductory level high school art course that covers the following units during the year: Basic Drawing- gesture, contour, perspective, shading, cross-hatching and stippling techniques, facial dimensions and body proportions. Color Theories-primary, secondary, tertiary, neutrals, tints, tones, shades, analogous and complimentary colors, how to mix color to produce these. Elements of Art and Principles of Design throughout all studio activities in two dimensional and three dimensional projects. Mediums-pencil, pen and ink, tempera, watercolor, acrylic paints, colored pencil, charcoal, pastels, scratchboard, clay, paper, paper Mache, found objects, natural objects. Art History- relative to explanation of theory and mediums. Painting composition and theme, techniques and styles. Art in advertising composition, layout, graphics, slogans, lettering and use of the computer. Creativity developing divergent thinking as it applies to class work and enhances life. Special projects chosen according to student interest.

One credit is given for this course.

Drawing & Painting I & II

Studio Art is a prerequisite for this course because some of the same theories are covered during this course, but at a much higher level. Students are asked to apply and demonstrate their knowledge of art theories and drawing techniques through specific projects that are well planned and long termed. Individual interests are encouraged as students work to develop their own style. Ideally, their study will include research of topics, art history, and should reflect related experiences for each student. One credit is given for each

Creative Crafts I & II

This is a one-semester course granting ½ credit for each. It has an open curriculum based on the interests of each student. There are many areas from which a student can choose, including: stained glass, wood burning and carving, needlecraft, knitting, crocheting, weaving, jewelry making (pewter and beadwork) basket making, tole painting, mask making, cake decorating, mosaics with ceramic tile and glass, tie dye and batik, calligraphy and scrap booking. ½ credit is given for each.

Ceramics I, II, & III

A one semester course with a focus on “hand-building”. The basic methods of hand built pottery will be the early focus then, using some of these methods, basic sculptures will be made. The use of molds in ceramics will also be explored. Each student will plan and make a simple mold from a clay original. The student will then make, fire, and glaze the result. How to use commercial type molds will be covered as well as how the poured clay can be changed or added to, thus creating a new style from the original commercial mold. Students will learn how to fire a kiln, greenware, bisque, and glazing techniques. ½ credit is given for each.

Digital Photography I

This half year course will help the students become well rounded in the fundamentals of digital photography. Four areas of instruction will be emphasized: How cameras work, how composition works, how lighting works, how to use photo editing software. This class is designed to offer experiences with point and shoot cameras as well as digital SLR cameras. The elements and principles of design as they relate to photographic composition are emphasized. Students will, generally, receive basic instruction, demonstration, and see samples of the desired outcomes, at the beginning of each period. They will be allowed to go outside and shoot assignments, based on what they are learning. Perhaps the most useful part of classroom instruction will be daily reviews of photos students have shot the previous day(s). They will see what makes a successful photo and what does not. Students will also prepare their work for display and exhibition at Open House. At the end of this course, you will:

- Know how to use various features of the camera to have creative control of your photographs.
- Be able to decide what type of lighting to use in a given situation to produce optimum results.
- See how photographic composition can make or break a photograph
- Understand how to use photo editing software to improve the overall appearance of images.

1/2 credit is given.

Digital Photography II

This course in photography will explore various camera settings will be learned to offer greater creative and technical control. This course builds the foundation for visual literacy regarding both form and content of photographic images. Students learn framing within the viewfinder and explore various compositional principles. Students also learn to examine images critically through weekly critiques. Digital processing techniques are introduced using Adobe Photoshop. Successful completion provides a foundation for further study in independent advanced photography courses. Students will also prepare their work for display and exhibition at Open House. 1/2 credit is given.

COMPUTERS

Programming I

This class is an introduction to computer programming through the use of the Python programming language. Syntax of programming, creativity, critical thinking, and problem-solving skills are all developed and improved. No prior programming experience is required for success. ½ credit will be given.

Computer Graphics

This is an upper level computer class with introductory courses in art and computers as prerequisites. This course allows students to become acquainted with the Photoshop program, as well as Microsoft Movie Maker. They will also get familiar with photography using a digital camera and the scanning of photos on a scanner. Students design and create projects, posters, programs, schedules and other graphic material for various school and community organizations. Students enjoy experimenting with special effects and creating new ideas for graphic designs. One credit will be given.

Robotics

Robotics I is a one semester course designed to expose students to basic robot programming using NAO robots. Students work collaboratively and individually on projects including, but not limited to: movements, hand and arm motions, facial recognition, object recognition, and voice recognition. Students have the opportunity to work on presentations for other children in the building, as well as the freedom to imagine their own cumulative final project. Each is a ½ year course. ½ credit will be given.

Computer Programming - CSC 1570

Students will learn the components of the programming cycle including problem analysis, algorithm development, design implementation, debugging, and acceptable documentation standards. Other topics include control structures, documentation, user-defined methods, parameter passing, graphical user interfaces, arrays, and user-defined classes. Students will implement their algorithms using an object-oriented programming language, Java. No credit will be given until the completion of Programming Concepts. Three college credits will be given.

Programming Concepts - CSC 1590

Students will learn algorithm development and object-oriented program design using an object-oriented language such as Java. Topics include control structures, program debugging, documentation, user-defined methods, parameter passing, graphical user interfaces, arrays, and user-defined classes. Students spend a substantial amount of time working on computer projects. One credit will be given at PCS/with 3 college credits.

English Courses

English 9

Students will closely read and analyze informational texts with a focus on making claims and providing evidence; write responses that are supported by text-based claims; connect literature, novels, poetry, and plays to life and the “real” world; evaluate & critique grade level or higher literature thoughtfully; respond to others’ work orally and in writing; use the elements of good writing; recognize and demonstrate an understanding of revision; write to a variety of audiences and purposes; understand writing as a process; develop factual, interpretive, and evaluative questions for further explorations of the topic(s); present research-based information and/or opinions through public speaking using learned skills & multi-media; expand vocabulary through reading and context clues; identify and use proper grammar and mechanics in writing and speaking and cite others’ work using MLA. One credit is given.

English 10

Students will explore the New York State modules through a variety of texts, focusing on close reading of speeches written by Martin Luther King Jr. and Eleanor Roosevelt. Students will study excerpts from famous novels such as *The Joy Luck Club* and nonfiction works such as *The Immortal Life of Henrietta Lacks*. Students will finish with a complete study of William Shakespeare's *Macbeth*. In addition, students will sharpen and polish their writing skills through a variety of assignments that emphasize text-based support and thorough discussion of both literary and rhetorical. One credit is given.

English III CC

Students in this course will polish their skills in reading comprehension and writing in preparation for the Common Core Regents Exam in English Language Arts which is administered in June of the students’ eleventh grade year. Students will read, analyze and critically evaluate a wide range of non-fiction and literature, and will focus on improving their analytical and argumentative writing skills. Successful completion of this course and the culminating exam are required for graduation in New York State. One credit is given.

English 12

Students will analyze how and why individuals, events, and ideas develop and interact over the course of a text; analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole; integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words; read and comprehend complex literary and informational texts independently and proficiently; respond to literature by employing knowledge of literary language, textual features, and forms to read and comprehend, reflect upon, and interpret literary texts from a variety of genres and a wide spectrum of American and world cultures; write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence; write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content; write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences; produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience; develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach; use

technology, including the Internet, to produce and publish writing and to interact and collaborate with others; conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation; gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism; conduct a final senior project that explores an area of interest, while practicing the valuable skills of time management, communication, goal-setting, and decision-making or design a community service project that will benefit emotionally and psychologically as a result of volunteering their time to help those in need. One credit is given.

College Academic Writing

WRT 105 is an introduction to academic writing. In this class, you will write, revise, edit and reflect on your writing with the support of the teacher and peers. You will engage critically with the opinions and voices of others as you develop a greater understanding of how your writing can have an effect on yourself and your environment. You will have regular opportunities not just to write, but also to reflect on writing situations and your own development as a writer. The course will engage you in analysis and argument, practices that are interdependent and that carry across academic disciplinary lines and into professional and civic writing. Analysis, as Rosenwasser and Stephen claim in *Writing Analytically* 7th edition, “is a form of detective work that typically pursues something puzzling, something you are seeking to understand rather than something you believe you already have the answers to. Analysis finds questions where there seemed not to be any, and it makes connections that might not have been evident at first. Analysis is, then, more than just a set of skills: it is a frame of mind, an attitude toward experience” (2-3). You analyze when you talk to a friend to get another perspective on why Spain performed so poorly in World Cup 2014, when you read up on the recent conflict in Iraq in order to discuss it more confidently in your global politics class, when you watch and re-watch a film in order to discern how it works on a visual level, or when you review a sampling of your own writing in order to see and make sense of the patterns in your work. Argument involves inquiry and analysis and engages others in ongoing conversations about topics of common concern. Evidence for your arguments comes from analysis, from discussion with others, from your personal experience, and from research. Arguments are also situationally specific: that is, they look, sound, and persuade differently depending on audience, purpose, genre and context.¹ In addition to being persuasive, arguments can be a means of sharing information, posing important questions, or even raising consciousness about issues. ½ credit is given/with 3 college credits

College Creative Writing

Writing 114 provides an introduction to creative nonfiction (CNF), a genre that encompasses many kinds of prose: memoirs, biography, travel writing, science writing, and literary journalism, to name a few. CNF writers almost always—in some way or other—focus on the tensions that emerge between individuals and the world around them. Thus, the title of this course, “Writing Culture,” refers to writing about oneself and others in the context of a broader culture. How do we negotiate cultural norms, expectations, rituals, and practices? How does culture shape us as individuals? To what degree do we absorb or resist our cultural influences? And how do we, as individual actors and witnesses to our world, shape the culture in which we live? These are just a few of the many questions we’ll ask ourselves as we move through this course. In this class, we’ll read and reflect upon a variety of creative nonfiction texts, as well as compose our own essays. You’ll have the freedom to explore a wide range of topics and experiment broadly with voice, style, form, and the use of research to enrich your writing. Rather than present reality as a series of raw facts, CNF writers borrow techniques of fiction writing—description, anecdote, scene construction, characterization, and

dialogue—to tell dynamic and compelling true stories. The crucial distinction between creative nonfiction and fiction is that nonfiction purports to tell the truth with very little embellishment, while fiction claims to be “made up.” Creative nonfiction also draws from poetic approaches to language, including imagery, metaphor, tone, and shifts in point of view and perspective. We’ll study these building blocks of creative nonfiction and use them in the composition process. Since this is an intensive writing class, we’ll often engage in writing workshops in class, including brainstorming and freewriting activities, and structured peer critiques. You will need to come to class prepared to write. All students will need a dedicated notebook for this purpose. ½ credit is given/with 3 college credits.

FOREIGN LANGUAGES

Spanish I

Beginner level Spanish covering the basics of communication. Thematical units such as weather, colors, numbers, etc. are the focus for this exciting novice level course. Students will learn to read, write and begin to speak basic Spanish. One credit is given.

Spanish II

Spanish II is a second year Spanish course offered to primarily 9th graders. Here, the focus from solely vocabulary acquisition transitions to formations of the basic functions of listening, writing, and speaking Spanish. The students will be able to form basic sentence structures while discussing everyday situations in both the present and past tense in Spanish. One credit is given.

Spanish III

Spanish III is a third year Spanish course offered primarily to 10th graders. Here, we will build off of basic sentence structures from Spanish II, and move into more complex details of grammar and syntax. A greater emphasis on being able to speak within an everyday situation is required. The students will learn several tenses that will allow them to speaking in the present, past, and future tense, as well as being able to give commands in Spanish. They will also be able to give advice for everyday problems in Spanish. One credit is given.

Spanish IV

This is a proficiency based course for high beginners which continues to develop the five language skills (listening, speaking, reading, writing, and culture) and which prepares students to communicate effectively in both written and spoken Spanish on a variety of topics related to themselves, their personal experiences, and everyday situations one might encounter in a Spanish speaking environment. Communicative objectives include: giving and getting information, directions and advice, telling anecdotes and stories, expressing doubts and opinions about a variety of topics and situations, making explanations, talking about the future and hypothesizing. Students are prepared to deal with real life situations that may arise in a Spanish speaking environment. This class is conducted in Spanish. One credit is given.

Spanish V-College Spanish-SUPA 201

SPA 201 is a proficiency-based course that reviews understanding of the formal structures of language; refines previously acquired linguistic skills and builds cultural awareness. Authentic cultural and literary texts are introduced. Communicative objectives include giving and getting information, surviving predictable and complicated situations, narrating and describing in present, past and future time. This is a 4-credit course. The class is conducted entirely in Spanish. SPA 201 fulfills the skills requirement in foreign languages for the liberal arts core. Course Objectives: This course will allow students to expand on a variety of concrete topics, to explain, compare, describe and narrate in the present, past, and future times in the context of connected discourse, and to use diverse language strategies to deal with complicated situations. The course will review and recycle essential syntax and will spiral contexts for vocabulary enrichment. Grammar, vocabulary, and other information are presented and practiced to allow students to carry out specific functions (e.g. narration in the past, present description etc.) and not as an end in themselves. Authentic readings, both literary and informational, and sophisticated cultural materials will be introduced. The focus of the course will be the systematic development of Advanced level skills, according to the ACTFL proficiency guidelines, 2012. By the end of the course, it is expected that students will consistently speak, understand, read and write within the Intermediate-Mid range on the ACTFL scale, but with emerging evidence of Advanced level skills. One credit is given/with 4 college credits.

CHINESE 1

Designed to introduce students to Chinese language and culture. Chinese I introduces basic syntax, vocabulary, tonal sounds, and written characters so that students can read, write, speak, and understand the language at a basic level within predictable settings, using common courtesies and conventions. Culture is introduced through art, literature, music, and the extensive history of China. One credit is given.

Chinese II

Continues to build on the concepts of Chinese I, with an emphasis on moving away from the Pinyin (Romanization) alphabet, and using primarily characters to both read and write. Speaking and listening skills continue to develop. Culture is shown through art, literature, music, and the extensive history of China. One credit is given.

Chinese III

The current terminal course, Chinese III is totally freed of Pinyin (Romanization) in class and homework, and relies solely on characters. This class is conducted primarily in the target language, for both instruction and conversation. Cultural opportunities remain similar to levels I and II. One credit is given.

Math Courses

Algebra 1

Integrated Algebra is the first mathematics course in the high school. Algebra provides tools and ways of thinking that are necessary for solving problems in a wide variety of disciplines, such as science, business, social studies, fine arts, and technology. This course will assist students in developing skills and processes to be applied using a variety of techniques, including technology, to successfully solve problems in a variety of settings including: linear equations in one variable, quadratic functions with integral coefficients and roots as well as absolute value and exponential functions. The TI – 84+ graphing calculator is required. Students will take the NYS Regents Algebra exam (Common Core) in June. Passing this exam is required for graduation. One will be given.

Algebra 1A CC

Algebra 1B CC

This course has the same contents as Algebra 1 CC but at slower pace. They will take the regents at the end of the second year. One credit will be given for each.

Geometry CC

Geometry is the second course in mathematics for high school students. Within this course, students will have the opportunity to make conjectures about geometric situations and prove in a variety of ways, both formal and informal, that their conclusion follows logically from their hypothesis. Students will use the traditional tools of compass and straightedge. Geometry is meant to lead students to an understanding that reasoning and proof are fundamental aspects of mathematics and something that sets it apart from the other sciences. The TI – 84+ graphing calculator is required. Students will take the NYS Geometry exam (Common Core) in June. This exam is the second of three math exams required for an Advanced Regents diploma. One credit will be given.

COMMON CORE ALGEBRA II

Common Core Algebra II is a one-year course intended to be the third course in mathematics for high school. This course meets the requirements for an Advanced Regents Diploma. The content standards associated with Algebra II are based on the New York State Common Core Learning Standards for Mathematics and the PARCC Model Content Framework for Algebra II. This course builds on students' work with topics that include: the Real Number System, Quantities, the Complex Number System, Seeing Structure in Expressions, Arithmetic with Polynomials and Rational Expressions, Creating Equations, Reasoning with Equations and Inequalities, Expressing Geometric Properties with Equations, Interpreting Functions, Building Functions, Linear, Quadratic, and Exponential Models, Trigonometric Functions, Interpreting Categorical and Quantitative Data, Making Inferences and Justifying Conclusions, Conditional Probability and the Rules of Probability. Students are prepared for the NYS Algebra II (Common Core) Regents Exam which is taken in June. One credit is given.

MATH 12 (PRECALCULUS)

This course is designed for juniors and/or seniors who have mastered the material from Common Core Algebra II and have passed the Common Core Algebra II Regents Exam. It is recommended that seniors who are entering college the following year enroll in this course. Students in this class will deepen their algebraic skills as this course will emphasize mathematical thinking, the use of mathematical models and the understanding of mathematical functions and graphs. The course is designed to provide a foundation for the future study of Calculus by introducing limits and derivatives. The TI-84+ graphing calculator is required. Students will take a teacher made final assessment in June. One credit is given.

SUPA CALCULUS (MAT 295)

MAT 295 is the first course of a three-semester course in Calculus offered by the Department of Mathematics. This sequence is designed for science and engineering majors, and for students in other disciplines who intend to take upper level mathematics courses. The sequels to MAT 295 are MAT 296 and MAT 397. Each of these three courses carries 4 credits. MAT 295 covers concepts of functions, limits, differentiation, integration, and includes applications of these concepts such as graph sketching, optimization, linearization, and the computation of areas, volumes, and arc lengths. One credit is given

Practical Math

Practical math is designed to help students that struggle with mathematics attain their third math credit. In the early sections we review basic computations. This equips students to deal with the more complex problems found in later units. In this course we work on the applications of basic mathematics in every-day life. These applications focus on basic survival skills and essential consumer topics such as checking and savings accounts, housing and personal finance. We also cover topics like automobile expenses, transportation, taxes, credit, full & part-time work, basic purchases and trade industries. One credit is given.

Music Courses

Concert Band

This is the performance-based class which grants credit through required participation in concerts throughout the year, as well as attendance at weekly scheduled lessons. Major ensemble works of different styles and musical periods are rehearsed and performed. The students will work to develop skills to an acceptable level of musical and technical ability. Participation in rehearsals, lessons, and concerts are required. Solo performances for evaluation are optional, and can lead to acceptance into honors ensembles such as All-County, Area All-State and All-State. One credit is given.

Jazz Ensemble

Inclusion in this course is by instructor's approval. It offers a focus on the performance of jazz in the big band ensemble setting (saxes, trumpets, trombones and rhythm section). Students must participate in High School Concert Band in order to be considered in the jazz program. Attendance at all concerts, competitions and scheduled rehearsals is mandatory. ½ credit is given.

Music Theory I and II

Offered as two separate courses, Music Theory I and II present a comprehensive overview of the fundamental elements of music. Both courses are designed as independent studies taught by Mr. Archer. Students who are interested should see Mr. Archer before registration. The credits may be used toward a Regents sequence in music or fine arts. One credit is given for each course. (AFTER SCHOOL HOURS ONLY)

High School Chorus

The High School chorus is a performance based class, open to any student in grades 9-12 who wishes to participate. Director approval is required for any student who has not been in the program prior to 9th grade. Participation in concerts, as well as attendance at a vocal lesson once each 6-day cycle, is a required part of the course. Singers will work to develop his / her skills of music literacy and vocal technique. Members of chorus are eligible to participate in, Solo Festival, All-County, Area All-State, and All-State if they meet the criteria of acceptance. One Credit is given.

PHYSICAL EDUCATION

Physical Education is an instructional program contributing to the mental, emotional, social and physical development of all students. Student's grade 7-12 will receive a number grade, calculated into their final grade point average. They will be assessed on their skills during games play for certain units. In doing this we want to provide each student with the appropriate knowledge, skills and sportsmanship that is needed for students to be successful in a variety of activities. The students will be taught in an atmosphere that is team oriented which will allow them to develop communication skills both in the gymnasium and in life. Our mission is that students will leave Portville Central with the appropriate knowledge, skills, benefits and understanding of how to live a healthy, physically active lifestyle . Physical Education is an integral part of a child's education. Not only does it provide activities to keep a young adult physically fit, it teaches teamwork and cooperation. From the locker room through the entire class, students learn both intellectual and life lessons. This is a required course for every student. ½ credit is given.

Conditioning

Group fitness course targeting overall fitness. Topics include stretching, weight training, cardiovascular activities, high intensity circuits, yoga basics, and powerlifting basics. Students will learn proper form and function for a wide array of total body exercises and will also learn about healthy choices and nutrition. Class meets in the weight room, indoor track, outdoor facilities, and sometimes use the computer labs for research. ½ credit is given.

Health

Health emphasizes the importance of knowledge, attitudes, and practices relating to personal health and wellness. Students will comprehend concepts related to health promotion and disease prevention; demonstrate the ability to access valid health information and health-promoting products and services; demonstrate the ability to practice health-enhancing behaviors and reduce health-related risks; analyze the influence of culture, media, technology, and other factors on health; demonstrate the ability to use interpersonal communication skills to enhance health; and demonstrate the ability to advocate for personal, family, community, and environmental health. ½ credit is given.

Science Courses

Earth Science

This is a laboratory based science class that emphasizes the function of the Earth's system. Emphasis is placed on the Earth's geologic systems, predictability of a dynamic Earth, origin of the Earth system and universe, basic facts about the moon and stars and the energy in the Earth system. A Regents exam is given upon completion of the course. One credit is given

Biology (Living Environment)

In this course, students will study principles of biology and how they relate to individuals and society, as established by the New York State curriculum. The principles include the scientific method; the unity of life; metabolism and homeostasis; genetics; reproduction and development; evolution; ecology; and human impact on the environment. In addition to class, lab is scheduled on alternate days. A Regents exam is given upon completion of the course. One credit is given.

Physics

This course presents a modern view of physics suitable for students with a wide range of skills and abilities. A strong background in mathematics is necessary to fully understand the fundamental concepts. This course is divided into units of study which include the following: measuring and mathematics, mechanics, energy, electricity and magnetism, waves, and modern physics. A problem solving method is taught which applies logical and creative thinking to new and unfamiliar situations. A Regents exam is taken upon completion of the course and is weighted heavily in the final average in preparation for future college coursework. Prerequisite: Algebra II. One credit is given.

Chemistry

This course presents a modern view of physics suitable for students with a wide range of skills and abilities. A strong background in mathematics is necessary to fully understand the fundamental concepts. This course is divided into units of study which include the following: measuring and mathematics, mechanics, energy, electricity and magnetism, waves, and modern physics. A problem solving method is taught which applies logical and creative thinking to new and unfamiliar situations. A Regents exam is taken upon completion of the course and is weighted heavily in the final average in preparation for future college coursework. Prerequisite: Algebra II. One credit is given.

College Biology

The goals of the first semester of this course are to learn about science as a way to explore the natural world, and to gain a deep understanding of the fundamental principles which underlie all of life. Topics include biochemistry, cell structure and function, molecular genetics, heredity and population genetics, and evolution. In the second semester, topics include biodiversity, plant structure and function, comparative human and animal anatomy and function, and ecology. Labs explore unity and diversity among the kingdoms of life, and include microscope work and dissections of specimens. In addition to class, lab is scheduled on alternate days. Successful completion of this year-long dual-credit course earns students 1 credit/with 8 college credits.

College Forensics

Chemistry 113, Forensic Science, is focused upon the application of scientific methods and techniques to crime and law. Recent advances in scientific methods and principals have had an enormous impact upon law enforcement and the entire criminal justice system. In this course, scientific methods specifically relevant to crime detection and analysis will be presented. Emphasis is placed upon understanding the science behind the techniques used in evaluating physical evidence. Topics included are blood analysis, DNA, organic and inorganic evidence analysis, microscopic investigations, hair analysis, drug chemistry and toxicology, fiber comparisons, paints, glass compositions, and fragmentation, fingerprints, soil comparisons and arson investigations, among other. Prerequisite: Chemistry and physics. One credit is given/with 4 college credits.

Environmental Science & Energy Systems

This course focuses on case studies in environmental issues affecting cultures around the world. Emphasis will be on the scientific knowledge necessary to understand the surrounding environment and on the application of this knowledge to current world problems. Students will study Earth's Systems and Ecology. Students will be learning about Human Population and how it influences environmental change. One credit is given.

Social Studies Courses

Global Studies 9

Global History and Geography is a two-year course mandated by the State of New York. The first year of the course (9th Grade) examines global history and geography from ancient times through the end of the Middle Ages. Topics of the first year include: Ancient Civilizations, Classical Civilizations, Chinese Dynasties, Belief Systems, Geography, Japanese Feudalism, Meso-American Civilizations, and the European Middle Ages.

Global Studies 10

Students continue their study of global history and geography from the Renaissance Era through present. Topics of the second year include: European Renaissance, Protestant Reformation, the Enlightenment, French Revolution, Industrial Revolution, Age of Imperialism, the World Wars, Cold War, Conflict in the Middle East, and Current Issues. The course itself is explicitly connected to NYS Standards for Social Studies and includes elements of the Common Core. At the conclusion of both years, all students will take the Regents Examination in Global History and Geography.

US History & Government

History and Government focuses on the political and economic development of the U.S. with special emphasis on Industrial America from the Civil War to the present time. The course also examines major concerns, issues, and trends facing the U.S. today and in the future. At the conclusion of the course, all students will take a Regents examination in U.S. History. One credit is given.

College Psychology

Psychology 205 is a one semester, three credit introductory psychology course offered at Portville through Syracuse University's Project Advance. Students who successfully complete the course can obtain college credit through Syracuse University. The primary instructional goal of the course is to provide students with information regarding major areas of psychology such as learning, memory, cognition, biopsychology, development, personality, psychopathology, and social psychology. Students will learn the basic principles, concepts, and research findings in psychology and will become acquainted with psychological research methods and procedures by conducting various research exercises and by completing their own psychology research projects. Students will be presented with opportunities to discuss current topics, events, real life experiences, and applications of psychological theories and research. Furthermore, students will learn the organizational and study skills important to succeed in college courses, as well as develop their oral and written communication skills as they write and present research findings. Equipped with this knowledge, students should be able to begin to apply psychological principles to many facets of life including relationships, self-management, health, sports, business, education, politics, parenting, etc. Students will come to understand the science of psychology and appreciate its wide applicability. This course will prepare students for more advanced psychology courses that they may wish to take in college. One credit will be given/with 3 college credits.

Government

Participatory Government provides both a reflective and analytical look at American society. Students examine both personal and societal problems in American society in an effort to develop skills, attitudes, and responsibilities which assist students in becoming active members in society. Rights and responsibilities are examined very closely in an effort to compare and contrast these elements in American society. Students are requested to attend local legislative meetings, keep track of important news stories, and present written articles on elements and issues consistent with common core methods of assessment. It is one semester in length and one-half of the senior requirement in social studies. $\frac{1}{2}$ credit is given

Economics

This is a one semester course for seniors to be taken as part of the grade twelve social studies requirement. The course is designed to introduce students to the economic principles that so effect their everyday lives. Economics serves as a primer in micro and macro economic principles for the college-bound student, while at the same time, preparing all students to make well-informed decisions as consumers, workers, and citizens in our rapidly changing society. It is one semester in length and one-half of the senior requirement in social studies. $\frac{1}{2}$ credit is given.

College US History

U.S. History is a challenging course that meant to be the equivalent of a freshman college course. It is a two-semester survey of American history from the age of exploration and discovery to the present. Solid reading and writing skills, along with a willingness to devote considerable time to homework and study are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills, essay writing, interpretation of original documents, and historiography. One credit is given. Students earn credit from Syracuse University if they complete the course with a C or above. One credit is given/with 6 college credits.

College Economics

Students will gain a complete collegiate based Economics curriculum. All aspects of Micro and Macro Economics will be explored as well as the challenges and issues faced within the confines of implementation in a free market and a liberal society. $\frac{1}{2}$ credit is given/with 3 college credits.

TECHNOLOGY

DESIGN AND DRAWING FOR PRODUCTION (DDP)

This course counts as an Art Credit. The name of this drawing class is a good description of what happens in this class. First the student is given a design problem. They will then have to come up with different design solutions through design sketches. They will then have to make or produce it. An example of this would be: given a certain amount of 1/8"x1/8" balsawood design an 8" tall structure that will hold as much weight as possible. Students will be solving problems through sketching. Students will be working on a wide variety design problems. If a student is considering a career in Engineering, Art or Design, this is a good course to get into. They will also be learning how to draw on the computer using various Computer Aided Drawing (CAD) Programs. 1 credit is given

ARCHITECTURAL CAD

This course is a great introduction to what a career in Architecture would be like. Students will be doing drawings such as: floor plans, elevation drawings, site plans, design sketches, wall sections, kitchen designs, perspectives, models, bathroom design and many others. This course examines the aspect of design and drafting as it relates to various aspects of building construction. Students will also be doing construction drawings of houses. They will understand what makes a house stand up. Students will be doing sketches as well as working on various Computer Aided Drawing (CAD) Programs. This class also gets involved in designing projects for the community. 1 credit is given

CONSTRUCTION SYSTEMS 1 - 7

This Course is an introduction to the construction aspect of production. This class is taught in a traditional woodshop. Students will learn the safe and efficient operation of woodworking equipment and hand tools. Students will be allowed to pick and choose what projects they will build out of wood. Projects range in size from wall shelves to large cabinets. The woodshop is very well equipped with new and modern equipment. The table saw in the woodshop is a state of the art SawStop. Students will have the opportunity to work with native hardwoods and exotic hardwoods. Skills learned in this class will be used throughout a lifetime. ½ credit is given.

CAD I

A hands-on course that uses SolidWorks as a modeling software. Students will exercise a variety of drafting and design software tools using SolidWorks to execute both two and three-dimensional drawings and illustrations. Students will produce drawings of their own design as well as assigned exercises. Drawings will be printed and/or plotted and evaluated. Once students have moved into 3D we will be 3D printing their designs and testing prototypes. One credit is given.

CAD II

This course is an inquiry-driven, applied, study, and analysis of 3D solid modeling. Engineering inquiry will include historical, current and future trends, standards, tolerances, and material properties. Applications include 2D and 3D scanning and manipulation of vector data, Computer Aided Design parametric modeling, Finite Element Analysis, statistical analysis programs, and output devices. Output will include print, plot, and 3D printing. The course will culminate with inquiry, analysis, and assessment 3D virtual models to support a capstone project to address an engineering design problem. One credit is given. Prerequisite: CAD I

CAD III

Students will be using SolidWorks at high level similar to that in industry. The majority of the time will be spent using 3D design and the 3D printer. Students will be working a long term capstone that will leave them with a finished product and working drawings. One Credit is given. Prerequisite: CAD I & II

ADDITIONAL COURSES

College, Career & Finance Seminar

This course is designed to prepare students for the years following high school. The course focuses on the college selection and application process. It also assists students in military selection or career selection. Students will create resumes, complete job applications, and be given interview skills. Lastly, the course focuses on real world skills such as budgeting, balancing a check book, understanding leases and contracts, and how to manage money. ½ credit is given.

Philosophy of sports

An inquiry into philosophical ideas and issues in history and current sport topics. Readings and videos will vary but not limited to: steroids, high school sports, collegiate sports, professional sports, Olympic controversies and current events. ½ credit is given.

Intro to Sports Medicine

This course is designed to promote the interest and instruction of students in the Sports Medicine field. The sports medicine field offers a wide variety of careers such as athletic training, physical therapy, occupational therapy, and so on. The course will cover various topics in the sports medicine such as: careers in sports medicine, anatomy and physiology, general medical evaluation and treatment, first aide, CPR, protective taping and bracing, therapeutic exercise, and therapeutic modalities. This class combines in depth classroom lecture with hands on lab activities. ½ credit is given.

Intro to Film

In this class, students focus on editing and making short films. They also do documentaries and study other aspects of filming. ½ credit is given.

Yearbook

Students organize and schedule all photography associated with the school. They design and create the yearbook, the senior video, and the senior night programs, as well as any other programs for sporting events. ½ credit is given.

B.O.C.E.S. COURSES

(Board of Cooperative Educational Services)

The following is a list of 3 credit courses offered through the Olean B.O.C.E.S. Center on the Windfall Road. These programs are available to students during their junior and senior years. For information detailing the programs, contact the Guidance Office at Portville Central School or the Student Services Office (Guidance) at the B.O.C.E.S. center at 372-8293.

AUTO TECHNOLOGY

AUTO BODY TECHNOLOGY / COLLISION REPAIR

AUDIO / VISUAL PRODUCTION

PROJECT DESIGN & MANUFACTURING

ANIMAL SCIENCE

COSMETOLOGY

CRIMINAL JUSTICE

CULINARY ARTS

MEDICAL PROFESSIONS

MEDIA COMMUNICATION TECHNOLOGY

NEW VISION / HEALTH PROFESSION

WELDING & METAL FABRICATION