



[1] This is a general survey course and is a prerequisite for all other art courses in the high school. The

containing hyperlinks, graphics, multimedia, and other applications! Importing and exporting files, editing and designing the content of their sites will also be explored. Some prior knowledge of computers is necessary. Interest in programming is a must.

[30] Students will learn to create Web pages and sites for small business and personal use through the use of HTML (hypertext markup language) and Adobe Dreamweaver. Students will produce Web sites containing hyperlinks, graphics, multimedia, and other applications! Importing and exporting files, editing and designing the content of their sites will also be explored. Some prior knowledge of computers is necessary. Interest in programming is a must.

[31] Concert choir is a mixed choral group which is open to students who are interested and meet the proficiency requirement. Students without choral experience must pass an audition with the Choir Director. The course provides advanced instruction in singing and performing techniques while exploring the more demanding levels of musical expression and interpretation. Music literature from all periods and styles is studied and performed. Students must participate in all school and community performances. A music sequence for graduation may be attained with two units or more in choir and music theory. One year of study in choir fulfills the arts graduation requirement in music or art. Students are required to attend weekly rotating group voice lessons.

[32] Microsoft's Excel software dominates the marketplace. With an estimated 90% market share, it is found on nearly every business computer. Microsoft Excel is used to calculate financial and statistical information and is used in a wide range of places, from individual households to Fortune 500 companies. Learn skills that will make you a more valuable employee in the workplace. Students will prepare to take the Microsoft Office Specialist (MOS) Certification Exam in Excel. Upon successful completion, students will receive a certificate from Microsoft stating their proficiency. Students have the opportunity to earn Microsoft Certification Available via the ACE Credit College and University Network.

[33] Financial Literacy will help students to understand the complexities of money management at a time where it is sorely needed by all. Students will learn about such topics as credit, home buying and mortgage options, retirement planning, investment options (stocks and bonds), etc. All are vitally important to everyone as a life skill. The use of current events will be stressed. Students will relate how economic and business principles affect investments through guest speakers, the Stock Market game, and classroom lecture. The highlight of this course will be a field trip to the New

provide a real-world simulation. This class is recommended for students who want to major in Business in their future education.

Prerequisite: Strong Math Background

[36] This course builds upon the accounting terminology and functions introduced in the Accounting I with Computer Applications course. The emphasis in this course is on partnership and cooperative formation and on cost accounting for manufacturing businesses. Prerequisite: Accounting I with Computer Applications

[37] AP Computer Science teaches students how to program in the Java language. It emphasizes object-oriented programming with a concentration on problem solving and algorithm development. Students will design and implement solutions to problems by writing, running and debugging complete programs. This course also includes the study and development of data structures and responsible use of systems. Students will take the AP Computer Science Exam in May. Prerequisites: Teacher recommendation and Director's approval

[38] Music Theory is designed for students who have studied musical instruments or have taken private musical study in voice, guitar, or keyboard. In addition to the rudiments of musical notation, topics studied include music construction and composition, harmony, orchestration, and basic keyboard skill to compose music. It also serves as part of the sequence requirements in the arts. Students without any formal music study in performing groups or private music instruction must obtain permission from the Director of Cultural Arts for admission to the course. This course will meet the 1 credit graduation requirement and is only available to students in grades 10-12.

[39] AP Computer Science principles will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns and computing impacts. In addition, student will use current technologies to create computational artifacts for both self expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Prerequisites: Introduction to Programming course or teacher's approval

[40] This course is designed to be part of a five-credit sequence in music, and is open only to students who have completed Theory I unless waived by the Director of Cultural Arts. Emphasis is given to more advanced musical composition, chord structure, keyboard and harmonic skills. Students will use DAW (Digital Audio Workstation) software. A major compositional piece or arrangement is also one of the objectives for students. Students are required to submit a major composition to the NYSSMA Electronic Music Festival as part of the final exam. For grades 10-12, the prerequisite is Theory I. 9th graders who continue participation in Band, Orchestra or Choir may be eligible to take this course upon teacher recommendation.

[41] In this half- year course, students will use the mobile programming language and App Inventor to program Android tablets and smart phones. Students will learn how to design and build mobile apps -- apps that are aware of their location, apps that send and receive text messages, apps that give advice and directions. The only limit on the types of apps students will learn to build is their own imagination.

[42] This course is designed to be part of a five credit sequence in music and is open only to students who have completed Theory II unless waived by the Director of Cultural Arts. The course is open to very select students who have demonstrated a high level of achievement and proficiency in both Theory I and II. The course is usually taught at the same time as Theory IV and the students work at an independent level. At least two major compositional pieces per quarter are expected as a course objective. Participation in music composition competitions may also be developed at this level of study. Grades 11-12 the prerequisite is Music Theory II. Music Theory III is a prerequisite for Music Theory IV.

[43] The focus of this course is collaboration and technology. Students will work collaboratively on a Final Project Presentation with students from outside the school district. Mandatory attendance of 3 Field Trips is

required for students to successfully complete their final presentation for the class and fulfill the collaboration requirement. Students will learn how to utilize the power of the internet & social media to enhance their web presence & digital profile. This course is available for 3 college credits through Stony Brook University Prerequisites: Teacher recommendation and Director's approval.

[44] This course is designed to be part of a five credit sequence in music and is open only to students who have completed Theory II unless waived by the Director of Cultural Arts. The course is open to very select students who have demonstrated a high level of achievement and proficiency in both Theory I and II. The course is usually taught at the same time as Theory IV and the students work at an independent level. At least two major compositional pieces per quarter are expected as a course objective. Participation in music composition competitions may also be developed at this level of study. Grades 11-12 the prerequisite is Music Theory II. Music Theory III is a prerequisite for Music Theory IV.

[45] Virtual Enterprise is an in-school, live, global business simulation that offers students a competitive edge through project-based, collaborative learning and the development of 21st century skills. There is a strong emphasis on entrepreneurship, global business, problem solving, communication, personal finance and technology. VE replicates all the functions of real businesses in both structure and practice. Students create and manage their virtual businesses from product development, production and distribution to marketing, sales, human resources, accounting/finance and web design. Successful completion of Accounting or previous business courses is recommended for this advanced course.

[46] IB Business Management SL is a one-year course that may be used to fulfill the elective requirement of the IB Diploma Program or may be taken as a certificate course. This standard level (SL) course is designed to give students an overview of business management concepts and strategies in the areas of human resources, accounting and finance, marketing, and operations management. Students will develop knowledge and understanding of business management theories, tools, and techniques and how they apply in a national and global business environment. Using a case study approach, they will learn to analyze and evaluate business activities from a social, cultural, and ethical perspective. In addition to the IB Business Management SL written exam administered in May, students are required to research and compose a written commentary on a real business issue or problem related to a topic on the course syllabus. Successful completion of Aresearch and c and c and c and c andful completion of Aresearch a sbr d

possess the skills, interest, and enthusiasm required to work at this level.

[56] Additional Prerequisites: Successful completion of both the Living Environment and Chemistry. Students in this course will have the opportunity to explore the science of the crime scene, and apply the principles from the fields of chemistry, biology, physics and earth science to analyze and interpret evidence. Students will be introduced to advances in scientific methods that have been used to assist law enforcement with an emphasis on the techniques used in evaluating physical evidence at crime scenes. Topics include fingerprint, forensic anthropology, hair and fiber analysis, proper crime scene analysis and modern advances in DNA detection. Students interested in pursuing a career in law investigation should find this course a valuable introduction to the field of criminal investigation. Laboratory investigations are incorporated into the daily lessons.

[57] The content of this course is focused on the mind and behavior from the developmental perspective. The course topics include: an introduction emphasizing leaders in the discipline and research methodology; the biology of psychology; developmental stages; life span psychology (childhood, adolescent, and adult); and personality theory. Students opting for this course will participate in relevant discussion as well as prepare research reports and article reviews.

[58] At this level, research students continue with the topics they chose during their first year in Fundamental Research and Participation. Students will establish a research plan that includes identifying resources, selecting a mentor and the research facility where the research will be conducted under the supervision of their mentor. Students will be required to participate in one nationally renowned research competition such as the Regeneron Science Talent Search Competition. Additionally, students will present their research projects at the annual BSHS Symposium held in June.

[59] The content of this course is focused on the mind and behavior from the social perspective. The course topics include: an introduction emphasizing leaders in the discipline and research methodology; group phenomenon; abnormality and disorders; and social problems. Students opting for this course will participate in relevant discussion as well as prepare research reports and article reviews.

[60] Fundamental Research and Participation are introductory courses to provide students with the necessary techniques and methodologies to properly conduct, develop and present a research project. Students will select a research topic in any area of science, engineering or mathematics. Under the guidance of their mentor, they will implement the scientific method as they perform experiments, write detailed scientific reports that include statistical analysis of their data, and present their results. It is expected that students will participate in local, regional and national competitions.

[61] This course will be a half-year elective open to sophomores, juniors, and seniors that focuses on African Americans in American society from slavery to present. It will be a thematic approach that seeks to tackle many themes in African American culture such as slavery and its effects on African American society and identity, Jim Crow legislation, affirmative action, racial epithets, as well as music and its influences. We will also attempt to make historical correlations to modern day issues in America dealing with race. Students will be required to question and break down stereotypes about people of African descent. Students will also learn about different cultural aspects of African American history. Students will gain greater insight about what it means to be African American, a person of color, or minority in America. Videos, music, a selected text, as well as Internet sources will be utilized to achieve our objectives*. An educational field trip to the Schomburg Center for Research

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[63] The Advanced Placement Psychology course is taught through the suggested curriculum of the College Board. Its purpose is to introduce students to the systematic and scientific study of the behavioral and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles and phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use in their theory and practice. A course project focusing on research techniques applied to course topic material will be explored and students will take the AP exam at the end of the course. Qualified juniors and seniors will be considered for admittance to the course.

[64] This course focuses on various career opportunities in the therapeutic, diagnostic, and supportive areas in the medical profession. Students will learn the basic principles of medical science, medical terminology, and vocabulary needed to work in the healthcare field. Students will gain practical hands-on experience in measuring and recording vital signs, emergency medical care, first aid, and basic patient care skills. Whenever possible, guest speakers from various healthcare fields will be featured to discuss their jobs or a particular area of clinical expertise. Site visits to area hospitals and various medical facilities provide the opportunity to observe medical careers at work and enhance the student's knowledge of various medical professions.

emerging sustainable building trends. Students will explore the technology, tools, materials and strategies of environmental solutions to modern residential construction concerns. Cutting edge careers will be examined as careers of the future. This course will include terminology, working drawings (blueprints), the selection and purchase of materials, cost and payback, and more. Strong emphasis will be given to local building codes and zoning laws. Students will gain hands on experience by planning and constructing a shed that incorporates various aspects of green design.

[69] Engineering through FIRST Robotics is a multidisciplinary course based on the Physical Sciences. Through the ideals of the FIRST organization (For Inspiration and Recognition In Science and Technology), students will be introduced to the technological subsystems of robots. This includes planning, design, development, fabrication and testing of these robot systems. Students will learn how to construct, wire and program robots to perform various functions for the current year's competition. Students will also use the cutting-edge technology of CNC mills and 3D printers to create design prototypes. Robotic designs will be entered into various competitions. WOR is intended for 10th-12th grade students that plan to pursue careers in engineering, science or technology.

[70] This course focuses on basic electrical theory and application. Students will learn about the generation, transmission, and distribution of electrical energy. Students will gain hands-on experience building basic circuits that we can find in a home. These include light sockets, two and three way switches, and receptacles. Students will study the wire and building codes associated with residential electrical work, as well as learn the terminology and how to use the basic tools of the electrical trade. The students will pass competency tests to move onto the next stage of learning. The tests will be accompanied by hands-on assessments which let the students apply the knowledge they have obtained. Prerequisite knowledge is basic algebra and arithmetic skills, and a willingness to learn.

[71] This course is designed to teach students the history of astronomy, the nature of planetary systems, and the formation of stars, galaxies, and the universe. Students will learn about the various celestial phenomena visible in our night sky (eclipses, shooting stars, aurora borealis, etc), space exploration, the motions of celestial objects, and history of constellations as it relates to Greek Mythology. Requires successful completion of Earth Science.

[72] POE is a multidisciplinary course, which is based on the Physical Sciences. It combines Project Based Learning (PBL) within a task oriented cooperative teams structure. Team projects will be entered into competitions. POE is intended for 12th grade students interested in pursuing an engineering or technology career. Other students may be admitted with permission. Students should have successfully completed the Integrated Algebra Regents and a laboratory based science Regents.

[73] Metallurgy is an introductory level course that gives students the opportunity to work with a variety of metal tools including a bender, shear, panbox brake and machines to shape various metals into finished products. Students will have multiple options for projects that may include; a sheet metal toolbox, aluminum lighted silhouette, sheet metal car and/or wind chime. Students will learn the importance of the metal working industry and many of the associated careers.

[74] Know Your Car is an elective designed to enlighten students about the responsibility of car ownership. Purchasing a car is an expensive proposition. This course will discuss how to research and purchase new and used vehicles, the proper maintenance of a vehicle, current NYS requirements for insurance (collision general liability) and general car maintenance (winterizing, cooling, ignition and brake systems, lubrication, fixing a flat tire and required oil changes) to assist them in the basic operation and care of their vehicles.

[75] This course is designed to teach students how to create virtual drawings, blueprints and building plans. Students will learn the AutoCAD software and use commands that mimic the standard pencil and paper drafting techniques. Students will complete a series of mechanical drawings that build on one another. Finally, they will finish the semester with a capstone project in which they design and create a floor plan of their dream house. The skill of using AutoCAD is in high demand in technical fields such as engineering, manufacturing, architecture, and building construction. Students interested in any of these fields should

than Technical drawing students. In addition DDP students work on projects that utilize their drafting skills in producing drawings of their own design. Most of Technical Drawing is incorporated into Design and Drawing for Production.

[85] This course is developed to introduce students to the world of architecture and construction. In this course students will learn about design, trade tools, industry standards, building codes, architectural symbols and language, line values, floor planning, layout, plan views, current and past architects of note, and trade information (i.e. salaries, companies, job descriptions, etc). Students will gain proficiency in utilizing modern technology, such as CNC machines and 3D printers, to meet course objectives. Students may choose to register with Farmingdale State College's University in the High School program to be awarded 3 Farmingdale State College undergraduate credits upon successful completion of this course.

[86] In this course you will learn about the basics of simple engines. Students will disassemble and rebuild a small gasoline engine in order to gain an understanding of engine operation. Engine maintenance, repair and tune up will be performed on simple engines. Students will become familiar with ignition systems, compare and contrast marine engines, steam engines, rotary engines and troubleshoot engine problems.

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