



OPT
2022 – 2023
PROGRAM
OF STUDIES

Grades 7-12

Applied Engineering and Technology

All courses in this department are electives.

INTRO TO CODING 7 (5801)

CREDIT: 0.6

HOURS PER WEEK: 2.5 hours per week

GRADE(S): 7

LENGTH: Semester

This semester-long programming course offered through CMU's Computer Science Academy introduces students to the fundamentals of programming. It is designed to engage and excite future computer science students through the use of text-based coding in Python. Intro to Coding also revolves around graphics-based problem solving and has similar visually-engaging notes, checkpoints, exercises, and projects for students to complete.

Fundamentals of Programming and Software Development (5391)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Students will learn details about core concepts in programming using Java. Concepts include writing and debugging code, proper syntax, flow of control, order of operations, comparison operators, and program logic tools and models. They will learn the function of key program techniques, including if statements, looping, and arrays. They will also learn about web development using HTML and drag-and-drop development of user interfaces in an integrated development environment.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Fundamentals of Computer Systems (5800)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Students will learn details about the different elements of computers and computer systems. They will learn to identify hardware devices and their functions. They will be instructed on the role of operating systems as well as how to install and customize the Windows operating system. Students will learn about networking and the Internet. They will also be introduced to security issues in order to protect themselves and their computers and data.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Intro to Engineering Design (5810)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours per week

GRADE(S): 8

LENGTH: 1 semester

This semester-long course focuses on building real-world problem-solving and critical-thinking skills as students learn how to innovate and design new products and improve existing products. Students are introduced to the engineering design process to build new products and to the reverse engineering process, which enables engineers to adjust any existing product. This semester-long course allows

students to discover the various fields of Engineering through projects and engineering-related activities. Students will navigate through a series of modules, exploring Civil, Mechanical, Chemical, Biomedical, and Industrial Engineering technologies. Students also examine the types of green technologies, engineering obstacles, and career paths to becoming an Engineer. Upon completion of the course, students will have navigated the Engineering Design Process and discovered the impacts engineering has on everyday life.

Network System Design (5825)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

The Network System Design course will provide students with an understanding of computer networks and how they operate, as well as a basic understanding of how to manage and maintain computer networks. These skills will provide students with the ability to design, configure, and troubleshoot networks of all sizes. Students will learn the basics of network design, including how to identify network requirements and determine proper network architecture. They will be instructed on the requirements of network models, as well as be introduced to local area networks.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Software Development Tools (5827)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course introduces students to the variety of careers related to programming and software development. Students will gather and analyze customer software needs and requirements, learn core principles of programming, develop software specifications, and use appropriate reference tools to evaluate new and emerging software. Students will produce IT-based strategies and a project plan to solve specific problems and define and analyze system and software requirements.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Engineering and Product Development (5850)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course provides an overview of the concepts of product engineering and development. Students will analyze the life cycle of a product to prepare a product for distribution and for target markets. The course begins with building an understanding of the product life cycle, from the initial idea to drafting requirements to using 3-D modeling tools and other design tools. The final unit focuses on assembling the pieces within a project plan to achieve a product and evaluating the plans for a successful product launch. In addition, the course will provide information about the different careers available to students interested in engineering, product development, and project management.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Introduction to Careers in Architecture and Construction (5851)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

The goal of this course is to provide students with an overview of careers in Architecture and Construction in order to assist with informed career decisions. This dynamic, rapidly evolving career cluster is comprised of three pathways (fields): Design and Pre-Construction (Architecture and Engineering); Construction (Construction and Extraction); and Maintenance and Operations (Installation, Maintenance, and Repair). The Architecture and Construction career cluster is defined as careers in building, designing, managing, maintaining, and planning the built environment.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Engineering Design (5881)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Engineering and Design is part of the STEM (Science, Technology, Engineering, and Mathematics) education and career path. By building real-world problem-solving and critical thinking skills, students learn how to innovate and design new products and improve existing products. Students are introduced to the engineering design process to build new products and to the reverse engineering process, which enables engineers to adjust any existing product. Students will also address how fluid power is used by engineers to make difficult maneuvers easier, increasing efficiency and minimizing effects on the environment. Students then identify how engineering and design have a direct impact on the sustainability of our environment and the greening of our economy. Finally, students incorporate the engineering design process, environmental life cycle, and green engineering principles to create a decision matrix to learn how to solve environmental issues.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Introduction to Programming (5884)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Intro to Programming covers a basic introduction to the principles of programming, including algorithms and logic. Students engage in hands-on programming tasks in the Python programming language as they write and test their own code using the approaches real programmers use in the field. Students will program with variables, functions and arguments, and lists and loops, providing a solid foundation for more advanced study as well as practical skills they can use immediately.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Construction Careers (5886)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course in Construction Technology introduces students to the basics of construction, building systems, engineering principles, urban planning, and sustainability. Students will learn the key techniques in building all types of buildings, as well as the key individuals involved in each step of the process. Many lessons present information on green building techniques and concepts that are becoming a standard part of the construction industry. Safety practices are emphasized in several lessons because construction is one of the most dangerous industries; students will learn that there is no way to be successful in construction without taking such issues seriously. Toward this end, the lessons also explore regulatory agencies and guidelines established for the purpose of protecting not only construction workers but also the occupants of a building.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

New Applications: Web Development in the 21st Century (5888)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

New Applications is a survey course that travels from the first software programs developed to facilitate communication on the Internet to the new generation of mobile and native apps that access the Internet without a reliance on a web browser. New Applications is also a practical course in how to develop a presence on the World Wide Web using WordPress and other available web-application tools. The goal of the course is to provide the learner insight into the rapidly evolving universe of programming and application development so that he or she can make informed career decisions in an industry that is changing as quickly as it is growing.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Introduction to STEM (5890)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course introduces students to the four areas of Science, Technology, Engineering, and Mathematics through an interdisciplinary approach that will increase awareness, build knowledge, develop problem solving skills, and potentially awaken an interest in pursuing a career in STEM. Students will be introduced to the history, fundamental principles, applications, processes, and concepts of STEM. Students will explore some of the great discoveries and innovations in STEM and review and analyze some of the world's problems that still exist today. Students are introduced to several computer applications used to analyze and present technical or scientific information. They will also gain a higher understanding of the uses for images and measurement in everyday life. Finally, students will explore the kinds of strategies frequently used to solve problems in these disciplines. Throughout the course, students will have the opportunity to discover their strengths through practical applications and awareness of the various STEM careers.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Fundamentals of Digital Media (5896)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Fundamentals of Digital Media presents an overview of the different types of digital media and how they are used in the world today. This course examines the impact of digital media on culture and lifestyle, reviews the basic concepts for creating effective digital media, and introduces a number of different career paths related to digital media. Students learn about the tools used as well as the best practices employed for creating digital media. This includes an overview of the new media creation process and the basic concepts of project management.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Introduction to Information Technology Support and Services (5897)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course focuses on real-world application, including common industry best practices and specific vendors that offer tools for technicians, project managers, and IT leadership. It should be emphasized that the purpose of the IT department of an enterprise is to support the overall mission of the company; it is not simply a standalone component of the company's infrastructure. Students will continue to apply their knowledge of hardware and software components associated with IT systems while exploring a variety of careers related to IT support and services. Students will analyze technical support needs to perform customer service and configuration management activities and evaluate application software packages and emerging software. Students will demonstrate and apply knowledge of IT

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Introduction to Network Systems (5898)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

The course also explores a good deal of technology, specifically the software and hardware supporting LANs, WANs, and Wi-Fi networks. Particularly important are the protocols in the TCP/IP stack that are used to communicate across a network, but the students are also introduced to the hardware, including hubs, switches, bridges, routers, and transmission media.

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Business Technology

The Business & Information Technology Department is dedicated to preparing students for a rapidly changing world by expanding each student's knowledge and skills in business, computer, and information technology. The knowledge, skills, and ethics taught are necessary for active, life-long participation in a global, informational society that fosters success in one's personal life, college studies and career choice..

Internship and Employment Theory for Seniors (5650)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: One year

This cyber course for seniors is taken in conjunction with 5651 Internship and Employment. The first semester includes workplace and job search skills. The 2nd semester will cover Economics so that each senior will be able to meet the school requirement of an Economics credit. To obtain an early release, you must be enrolled in this course AND the Internship and Employment course (5651) AND be employed or interning a minimum of 15 hours during the school week. See course 5651 for additional requirements.

COREQUISITE(S): Enrollment in Internship and Employment (5651)

Keyboarding and Office Applications (5653)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This cyber course will have a brief introduction to keyboarding, and then students will gain the introductory computer skills they need to use Microsoft Word, Excel, and PowerPoint applications to design, develop, create, edit, and share business documents. The student should be able to read and follow detailed on-screen instructions and be able to save and open network computer files independently. This is a project based course.

Introduction to Business (5657)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

In this introductory course, students learn about the roles of business and marketing in the free enterprise system and the global economy. Basic concepts of economic systems, business technology, marketing/advertising, costs and profit, and business communication will be introduced.

Introduction to Entrepreneurship (5659)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

Learn the skills needed to effectively organize, develop, create, and manage your own business, including the challenges, problems, and issues faced by entrepreneurs. You will become familiar with the traits and characteristics that are found in successful entrepreneurs, and you will see how research, planning, operations, and regulations can affect small businesses.

Business Law (5662)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

The student will start with gaining some familiarity with how laws are created and interpreted, and then continue with an introduction to contracts and laws that can impact a business. Bankruptcy, global commerce and international agreements and laws that affect how a business is regulated will also be reviewed.

Introduction to Marketing (5665)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Students will gain an understanding of the principles of marketing. Marketing includes creating a product or service concept, identifying who is likely to purchase it, promoting it, and learning how to sell it. Topics will include the marketing process, marketing planning, the marketing environment, and the trends, opportunities, and challenges in the marketing world today.

Internship and Employment Theory for Juniors (5649)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 11

LENGTH: Full Year

This cyber course for juniors is taken in conjunction with Internship and Employment (5651). This cyber course includes career exploration and job-related topics. To obtain an early release, you must be enrolled in this course AND the Internship and Employment course (5651) AND be employed or interning a minimum of 15 hours during the school week. See course 5651 for additional requirements.

COREQUISITE(S): Enrollment in Internship and Employment (5651)

Internship and Employment (5651)

CREDIT: 1

HOURS PER WEEK: 15 hours per week job experience

GRADE(S): 11 - 12

LENGTH: Full Year

This employment/internship course is taken in conjunction with cyber course 5650 (Seniors) or 5649 (Juniors). The student must be employed or interning a minimum of 15 hours a week, Monday through Friday. The student grade is based on monthly hours reports and quarterly employer evaluations. Students normally leave the building and campus immediately following their last required course of the day. Job-related transportation is the responsibility of the student. Your job experience or internship must have a clear employer-employee relationship where you are being paid an appropriate wage and your employer is deducting appropriate payroll taxes. Students are not allowed to work for immediate family members unless prior approval is received. Delivery jobs with no direct supervisor (i.e. Door Dash) are not allowed. A contract signed by the employer and another contract signed by the student and parent must be completed and returned to the Internship & Employment coordinator before the first day of classes. Contracts are available from the Internship & Employment coordinator two weeks before school starts.

COREQUISITE(S): Enrolled in Internship and Employment Theory (5650-Seniors) or (5649-Juniors) and employed 15 hours per week, Monday through Friday.

CHS Computer Information Systems (5654)

OTHER COURSE NUMBER(S): 6654

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: Full Year

This course introduces students to the essential technical and professional skills required in the field of Information Technology (IT). Through hands-on projects and written assignments, students gain an understanding of the operation of computers, computer networks, Internet fundamentals, programming, and computer support. Students also learn about the social impact of technological change and the ethical issues related to technology. Throughout the course, instructional activities emphasize safety, professionalism, accountability, and efficiency for workers within the field of information technology. Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit COMP 101 course: Computer Information Systems. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): Butler Community College requires a GPA of: Sophomore: 3.25, Junior: 3.0, Senior: 2.75

Travel and Tourism (5661)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

Students will learn about the various parts of the travel and tourism industry and how they are interrelated and integral to international and domestic travel and tourism. This will include travel agencies, tour companies, the airlines and other transportation sectors, lodging facilities, cruise lines, and marketing companies.

Planning Meetings and Special Events (5664)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

This course is an introduction to the study of planning meetings and special events. Being a meeting and special events planner is both demanding and rewarding. A meeting coordinator is responsible for every detail of an event, and planners must know how to communicate, be empathetic, and think of their clients. You'll begin with an historical overview of the industry, then move to how to organize a meeting, how to set up food and beverages, and finally, how to organize transportation.

Banking Services Careers (5666)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Banking Services Careers will focus on the specific skills related to banking and related services, including exploring career paths and the required training or higher education preparation necessary to obtain a career in banking and related services. You also will gain an understanding of the basic functions of customer transactions, cash drawer activity, check collection processes, and other customer service-related transactions.

Introduction to Consumer Services (5668)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

This course is designed as an overview to prepare students for a consumer services-related career such as customer service, financial counseling, management, sales, and public relations. Students will analyze various career paths of employment opportunities, including educational requirements, skills, and certifications for different careers.

Transportation, Distribution, and Logistics (5669)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

This course provides students with the history of logistics, and an overview of the fields of transportation, distribution, and logistics. Students will learn how warehousing and inventory impact the economy and the world of commercial transportation. Future trends in transportation, distribution, and logistics will also be outlined.

Business and Management Careers (5671)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Business and Management Careers is an introductory course for students interested in exploring careers in business and management. Specifically, business and finance, marketing, architecture, construction, manufacturing, transportation, distribution, and logistics. You will discover the components of establishing a business, and identify skills, abilities and talents needed for various business careers.

CHS Excel (5675)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

Excel is a spreadsheet program that allows data to be organized, calculated, graphed, analyzed and displayed in professional looking reports. You will be able to create basic and advanced Excel worksheets and workbooks using formulas, absolute references, functions and create and modify charts. You will also work with advanced formulas, using names and decision-making functions, lookups, data tables, PivotTables and PivotCharts, and Macros and Custom Functions. Through a partnership with Carlow University, students may opt to pay and pursue a 3.0 credit IT-200 course: Excel Applications Acc/Business. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): Algebra 2; Carlow University requires a high school GPA of 3.0 to pursue the university credits.

Introduction to Finance (5775)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One semester

This course will focus on the fundamentals of the financial services industry in the United States and explore the jobs and career opportunities that the industry offers. Topics include finance and financial services, securities analysis and investments, corporate finance, banking services, and risk management.

English

The English Department is dedicated to supporting students as they acquire the Common Core skills in the area of reading, writing, speaking, and listening. These skills are paramount as students communicate in a 21st century workforce

English 7 (5101)

OTHER COURSE NUMBER(S): 6101

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: Full Year

The nucleus of this course is literary analysis and writing. Students will explore various types of literature including short stories, a drama, and poetry while developing their ability to write and speak effectively. Students will develop critical thinking and reading skills by working collaboratively with peers and the teacher to answer higher-level questions. Grammar, vocabulary, and mechanics skills are taught through the analysis of literature and the expansion of the writing process.

Advanced English 7 (5105)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: Full Year

The nucleus of this course is literary analysis and writing. Students will explore various types of challenging literature including the novel, the short story, and poetry while developing their ability to write and speak effectively. Students will develop critical thinking and reading skills by working collaboratively and independently to create and answer higher-level questions. Vocabulary acquisition is covered through independent, challenging unit assignments and assessments; students will be expected to use newly acquired words in writing. Grammar and mechanics skills are taught through the analysis of literature and the expansion of the writing process. Students should understand that the advanced section of this course is taught at a faster pace using more rigorous pieces of literature.

English 8 (5110)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: Full Year

The nucleus of this course is literature, research and writing. Students will explore various types of literature including the novel, the short story, poetry, and drama while developing their ability to write and speak effectively. Grammar, vocabulary, and usage skills are taught through the analysis of literature and the expansion of the writing process.

Advanced English 8 (5115)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: Full Year

The nucleus of this course is literature and writing. Students will explore various types of literature including the novel, the short story, poetry, and drama while developing their ability to write and speak effectively. While reading multiple examples of informational texts, students will demonstrate

comprehension through written analysis of the source. Students will apply the stylistic methods from these informational text models in their own writing. Grammar, vocabulary, and usage skills are taught through the analysis of literature and the expansion of the writing process.

English 9 (5120)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full Year

English 9 interweaves writing, and reading, so that students can relate continuously to what they have already learned while broadening their understanding of literature and the writing process. Students will become adept at recognizing the different genres of literature and applying various literary techniques. Students will begin to use writing as an analytical tool. Students will become proficient with standard grammar and usage and will be able to compose without mechanical errors. The research process will be reviewed and strengthened.

Honors English 9 (5125)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full Year

Honors English 9 offers an in-depth analysis of literature, a comprehensive review of grammar and usage, and a rigorous application of the writing process. The material is intended to provide students an introduction to college-level scholarship. Students will become adept at recognizing the different genres of literature and applying various literary techniques. They will begin to use writing as an analytical tool. Students will become proficient with standard grammar and will be able to compose without mechanical errors. The research process will be reviewed and strengthened.

English 10 (5130)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Year

This course is designed to reinforce students' appreciation of numerous literary genres. Speaking, discussion, and listening skills will be enhanced while exploring various literary selections, along with poetry. Emphasis also will be placed on the application of standard grammar, mechanics, and vocabulary development. The research process will be reviewed and strengthened. Vocabulary skills will continue to be reinforced.

Honors English 10 (5135)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Year

The objective of Honors English 10 is to refine reading comprehension skills, writing skills, and analytical skills encouraging students to reach a proficiency in all areas, moving at a faster pace and at a more in-depth level than English 10. Students will be exploring the particulars of the writing process, delving into insightful concepts in literature, and reviewing grammatical and mechanical protocol. In addition, students will compile a research paper within the scope of the Seneca Valley School District curriculum, showcasing the ability to identify, comprehend, apply, analyze, and evaluate research in order to produce an argumentative position paper. Students will develop critical thinking, reading, writing, and vocabulary skills through a variety of assignments.

Life in America (5140)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: Full Year

This year-long junior course is a survey of American and American-related literature. Students will read, interpret, and analyze a broad and diverse selection of novels, essays, short stories, and dramas. Texts will be presented and organized by theme and will include work from early American writings and key American movements-such as Romanticism, Naturalism, and Modernism-as well as contemporary authors and perspectives. Students will read, understand, and respond to fiction, nonfiction, and modern media with an emphasis on improving reading comprehension, making connections between texts, and supporting thinking with textual evidence. Through reading and analysis, students will acquire vocabulary, refine English grammar, usage, and mechanics, and practice listening skills through online readings and presentations. Students will practice and demonstrate 21st century skills through critical thinking, digital literacy, and communication skills. Students will continue to grow in the writing process and will write for a variety of purposes and audiences. Students will improve writing in areas of focus, use of textual evidence, organization, style, and conventions. All students will complete a formal research paper formatted in MLA-style. Students will become adept at recognizing the different genres and themes of literature and applying various literary techniques. Students will also be able to trace the historical events, trends, and tendencies that influence traditional American literature language usage. Students will incorporate elements of American literature in the writing process using themes and issues in American fiction and non-fiction. Students will begin to use writing as an analytical tool and will become proficient with standard grammar and composition via research and supplemental writing assignments. Ideally, a team teaching approach will be utilized to address the needs of individual students when applicable.

Honors Life in America (5145)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: Full Year

This challenging, year-long junior course is designed for outstanding language arts students interested in enhancing their in-depth literary analysis abilities and composition skills. This course requires high levels of outside reading and frequent writing assignments. The course is a survey of American and American-related literature. Students will read, interpret, and analyze a broad and diverse selection of novels, essays, short stories, dramas, and film. Texts will be presented and organized by theme and will include work from early American writings and key American movements-such as Romanticism, Naturalism, and Modernism-as well as contemporary authors and perspectives. Students will read, understand, and respond to fiction, nonfiction, and modern media with an emphasis on improving reading comprehension, making connections between texts, and supporting thinking with textual evidence. Through reading and analysis, students will acquire vocabulary, refine English grammar, usage, and mechanics, and practice listening skills through discussion. Students will practice and demonstrate 21st century skills through critical thinking, digital literacy, collaboration, and communication skills. Students will continue to grow in the writing process and will write for a variety of purposes and audiences. Students will write in various modes including narration, description, exposition, and persuasion. Students will use MLA style in all research and writing assignments; all students will complete a multi-step, formal research paper. Students will incorporate elements of American literature in the writing process using themes and issues in American fiction and non-fiction. The materials used and skills addressed are intended to provide the student with an introduction to college-level scholarship.

Advanced Placement Language and Composition (5146)

OTHER COURSE NUMBER(S): 6146

CREDIT: 1

HOURS PER WEEK: 3.5

GRADE(S): 11 - 12

LENGTH: Full Year

This course is a college-level course that focuses on the semantic, structural, and rhetorical aspects of language. Included in this course are various types of narrative and essay forms and other examples of expository writing, as well as the analysis of structure, diction, and sentence patterns in literary works. Students have the option of taking the A.P. English examination that could result in attaining college credit. Students will begin work in the summer to complete the course work. An approved professional must proctor specific assignments on campus or off-site. The proctor agreement must be completed throughout the course.

Modern Humanities (5150)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: Full Year

In this course, students will be given the opportunity to critically examine what it means to be human through evaluating selected works of writing, art and both classic and contemporary literature. Students will be asked to analyze works by engaging in an inquiry process; much of the course will center on essential questions about meaning, purpose, nature and values. Students will improve reading and writing skills through examination of short but complex texts including essays and speeches. Students will be required to read, write, and think critically, as well as participate in whole class discussions using online communications. Additionally, students will complete all phases of their Graduation Project.

Honors English 12 (5155)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: Full-Year

This Senior English course provides an overview of the language arts, including literature, writing, grammar, speaking and vocabulary, utilizing a variety of classic and contemporary literature selections. By examining historical backgrounds of literary movements the course focuses on how storytelling helps humans project themselves into the world. The honors student will be expected to read and analyze all forms of literature-prose, poetry, drama and non-fiction-and demonstrate their comprehension and analysis through a variety of reading and writing activities. Students will complete the Graduation Project requirement as part of this course and in doing so, will utilize various online communication formats to understand project requirements.

Advanced Placement Literature and Composition (5156)

CREDIT: 1

HOURS PER WEEK: 3.5

GRADE(S): 12

LENGTH: Full Year

AP Literature is a college level course which engages students in the careful reading and critical analysis of imaginative literature. Through close reading of selected literary works of recognized merit, students will deepen their understanding and enhance their pleasure of literature. Writing assignments will focus on critical analysis of literature and may include expository, analytical and argumentative essays. These essays will be produced using advanced vocabulary, syntax and organization as well as insight into the author, genre and historical period which produced the work. Students will have the option, at their own expense, of taking the Advanced Placement Literature Exam which may result in the attainment of 3-6 college credits. The student will also complete all aspects of the graduation project. Upon the completion of the course and project, the student will be prepared for the type of analytical and evaluative reading and writing required of college freshmen.

CHS Speech (5172)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This is a one-semester course that covers communications in the first half of the course and speech in the second half. The course begins with an introduction that focuses on understanding the elements, principles, and characteristics of human communication and then goes on to explore the topics of self-awareness and perception in communication. Verbal and nonverbal messages are thoroughly examined as well as learning about cultural and gender differences in the areas of listening and responding. The communications part of the course concludes with units on interpersonal, group, and organizational communication. The speech section of the course starts with an introduction to public speaking and then goes on to take the student step-by-step through speech writing covering topics such as choosing a topic, purpose and thesis; research and supporting materials; and methods for writing and delivering a speech. The course concludes with units on informative and persuasive speeches and students are given the opportunity to critique and analyze speeches in the course. The course is designed for high school students and contains both formative and summative assessments. Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit COMM 201 course: Speech. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): Butler County Community College requires a high school GPA of: Sophomore: 3.25, Junior: 3.0, Senior: 2.75

Foundations of Creative Writing (5173)

CREDIT: 0.5

HOURS PER WEEK: 5

GRADE(S): 10 - 12

LENGTH: One Semester

Foundations of Creative Writing offers students an authentic application of the writing process to their original forms of expression. The material is intended to provide students with a creative outlet enabling them to cultivate self-expression through writing. This class is intended for students who are serious about writing. Students engage in experience writing personal reflections, definition essays, research essays, persuasive essays, informative essays, and literary analysis essays. The writing will adhere to all conventions of the English language and will exhibit a variety of sentence structures and word choice.

SAT/ACT English Test Prep - Fall (5188)

CREDIT: 0.25

HOURS PER WEEK: 2.5 hrs

GRADE(S): 10 - 12

LENGTH: One Semester blended with SAT/ACT Math

This course is for the college bound student preparing to take the SAT and/or ACT during their junior or senior year. The course will focus on analyzing each of the test question areas and give special consideration to test taking strategies. To prepare for verbal and written elements, the class will focus on evidence-based reading and writing, sentence fluency and grammatical accuracy, and understanding vocabulary words in context. Students will read from authentic documents, historical and literary texts to make evidence-based inferences and conclusions, to acquire vocabulary acumen and to analyze grammatical structures. Practice exams and online platforms will be used to help students obtain an understanding of what to expect from the actual SAT/ACT. Students will be required to purchase resources to aid in their practice of the skills reviewed in class (except for the cyber course option). This course will be PASS/FAIL.

COREQUISITE(S): 5383 SAT/ACT Mathematics Test Prep

SAT/ACT English Test Prep - Spring (5189)

CREDIT: 0.25

HOURS PER WEEK: 2.5 hrs.

GRADE(S): 10 - 12

LENGTH: One Semester blended with SAT/ACT Math

This course is for the college bound student preparing to take the SAT and/or ACT during their junior or senior year. The course will focus on analyzing each of the test question areas and give special consideration to test taking strategies. To prepare for verbal and written elements, the class will focus evidence-based reading and writing, sentence fluency and grammatical accuracy, and understanding vocabulary words in context. Students will read from authentic documents, historical and literary texts to make evidence-based inferences and conclusions, to acquire vocabulary acumen and to analyze grammatical structures. Practice exams and online platforms will be used to help students obtain an understanding of what to expect from the actual SAT/ACT. Students may be required to purchase resources to aid in their practice of the skills reviewed in class. This course will be PASS/FAIL.

COREQUISITE(S): 5384 SAT/ACT Math Test Prep

Introduction to Careers in Education and Training (5174)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours per Week

GRADE(S): 9 - 12

LENGTH: Semester

This course will introduce students to the field of education and training, and the opportunities available for early-childhood care, primary school, secondary school, higher education, vocational training, and adult and continuing education. It provides a thorough exploration of pedagogy, curriculum, standards and practices, and the psychological factors shown by research to affect learners. Students will gain an understanding of the career options available in teaching and support services. They will also explore the education and background experience needed to succeed in these careers.

Online Learning and Digital Citizenship (5180)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs

GRADE(S): 7 - 12

LENGTH: One Semester

Students develop essential study skills for academic success, such as staying organized, managing time, taking notes, applying reading strategies, writing strong papers, and researching and properly citing information. Explicit modeling and ample practice are provided for each study skill to support student mastery. Instruction on how to be a responsible online learner is threaded throughout the course, and these skills are directly addressed in lessons on cyberbullying, staying safe online, and becoming a digital leader. A basic understanding of software and hardware and how to troubleshoot common technology issues are also taught. By the end of the course, students will have the tools they need to be academically successful in both traditional and digital learning environments.

Strategies for Academic Success (5182)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Strategies for Academic Success is a one semester comprehensive study skills and strategies course designed for high school students. The course covers important study skills topics such as time management, note taking, online learning skills, and strategies for remembering key information. Within the course, students receive real-world activities to further enhance learning.

Family and Consumer Sciences

All courses in this department are electives.

Intro to Family and Consumer Sciences (5610)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: One Semester

This class will give students opportunities for self-exploration. Students will explore personal finances, healthy relationships, food and nutrition. Students will be presented with lifetime skills that include the following: kitchen and food safety, sanitation, shopping techniques, and consumer rights and responsibilities.

Leadership and Career Development (5641)

CREDIT: 0.5

HOURS PER WEEK: 5

GRADE(S): 9 - 12

LENGTH: One Semester

This course is for students who wish to learn how to choose a college or career, complete a college/job application, apply for scholarships, prepare for a career by building your resume and cover letter, and develop interviewing skills.

Adult Living (5643)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs

GRADE(S): 9 - 12

LENGTH:

This is designed as a one-semester course for high school students. Lessons present students with essential information regarding desired consumer skills for personal success. The primary skills examined include, ascertaining an understanding of the economic aspects of personal financial stability and success along with accompanying consumer responsibilities, aspects of healthcare, housing, and its financial facets, and transportation cost and decisions.

Intro to Family and Consumer Sciences (5610)

CREDIT: 0.5

HOURS PER WEEK:

GRADE(S): 8

LENGTH:

This is an introductory class for the area of Family and Consumer Sciences. By taking this course, students will gain basic knowledge and skills in the areas of food and nutrition, family relationships, clothing, and consumerism. The course is designed to be relevant to the students' present-day life and a foundation for future courses in the Family and Consumer Sciences department.

Fine Arts

Students taking the following art courses will establish a firm foundation in the visual arts. By learning how to visually interpret the world around them, students will develop perceptual reasoning and a keen sense of spatial relationships. All courses in this department are electives.

General Art 7 (5715)

CREDIT: 0.5

HOURS PER WEEK: 5

GRADE(S): 7 - 8

LENGTH: Full-year

This 7th-grade project-based course lets cyber students explore and engage in hands-on art-making experiences without being a hybrid student. This new course consists of project-based learning opportunities and components engaging with art criticism and appreciation taught by a Seneca Valley art teacher.

Art History 1: 30,000 BCE- 1900 AD (5776)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours per week

GRADE(S): 9 - 12

LENGTH: One Semester

Introducing art within historical, social, geographical, political, and religious contexts for understanding art and architecture through the ages, this course offers high school students an in-depth overview of art throughout history, with lessons organized by chronological and historical order and world regions. Students enrolled in this course cover topics including early medieval and Romanesque art; art in the twelfth, thirteenth, and fourteenth centuries; fifteenth-century art in Europe; sixteenth-century art in Italy; the master artists; High Renaissance and baroque art; world art, which includes the art of Asia, Africa, the Americas, and the Pacific cultures; eighteenth-and nineteenth-century art in Europe and the Americas; and modern art in Europe and the Americas.

Art Exploration

CREDIT: 0.5

HOURS PER WEEK: 5

GRADE(S): 9-12

LENGTH: One Semester

This course enables the cyber art student to complete hands-on art projects with teacher input. Students will explore 5 projects outlined in easy-to-understand direction sheets and presented in PowerPoint, complete with finished examples for reference. Students will upload images of their art for teacher feedback and assessment.

Mathematics

The Mathematics Department is dedicated to supporting students as they acquire the Common Core skills in the various area of mathematics. These skills are paramount as students problem solve in a 21st century workforce.

CYBER CONCEPTS OF PRE ALGEBRA (5301)

CREDIT: 1

HOURS PER WEEK: 7

GRADE(S): 7 - 8

LENGTH: Full Year

The Pre-Algebra course focuses on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Students in this course will also be enrolled in Math Cohort 2 days a week.

Pre-Algebra (5303)

OTHER COURSE NUMBER(S): 6303

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: Full Year

The Pre-Algebra course focuses on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Algebra 1 (5305)

OTHER COURSE NUMBER(S): 6305

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: Full Year

This course is the study of basic algebraic structure of the real number system. The major topics studied are: variables, expressions, properties, exponents, equations, inequalities, polynomials and graphing. Emphasis will be placed on both the understanding of concepts and the acquisition of skills. This course is designed as a foundation for the study of advanced mathematics and science and an application of concepts and skills. Solving real-life problems is also addressed.

Concepts of Algebra (5310)

OTHER COURSE NUMBER(S): 6310

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 8

LENGTH: Full-Year

Concepts of Algebra is the study of basic algebraic structure of the real number system. The major topics studied are integers, fractions, decimals, percents, variables, expressions, properties, exponents, equations, formulas, and graphing. Emphasis will be placed on both the understanding of concepts and the acquisition of skills through real world application. This course is designed as a foundation for the study of advanced mathematics and science and an application of concepts and skills.

Algebra 1 (5312)

OTHER COURSE NUMBER(S): 6312

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8 - 10

LENGTH: Full Year

This course is the study of basic algebraic structure of the real number system. The major topics studied are: variables, expressions, properties, exponents, equations, inequalities, polynomials and graphing. Emphasis will be placed on both the understanding of concepts and the acquisition of skills. This course is designed as a foundation for the study of advanced mathematics and science and an application of concepts and skills. Solving real-life problems is also addressed.

Geometry (5324)

OTHER COURSE NUMBER(S): 6324

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 11

LENGTH: Full Year

Geometry is an academically challenging course which includes an in-depth analysis of plane, solid, and coordinate geometry as they relate to both abstract mathematical concepts, as well as real-world problem situations. Significant emphasis is placed on algebra which is integrated throughout all units. The course is designed to focus on the key topics of geometry including inductive reasoning, deductive reasoning and proofs, perpendicular and parallel lines, triangles, quadrilaterals, similarity, congruency, right triangles, circles, surface area, and volume.

PREREQUISITE(S): Successful completion of Algebra 1 and teacher recommendation

Honors Geometry (5325)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8,9,10,11

LENGTH: Full Year

Honors Geometry is a fast-paced, demanding academic course specifically designed for highly motivated students who enjoy a challenge. This course develops the structure of geometry, logical thinking, precise language, geometric notation, and proofs. The development of these concepts employs both inductive and deductive reasoning, while incorporating required algebra skills. The goals of this course are to develop student proficiency with geometric concepts. The course is designed to focus on the key topics of geometry including inductive reasoning, deductive reasoning and proofs, perpendicular and parallel lines, triangles, quadrilaterals, similarity, congruency, right triangles, circles, surface area, and volume.

PREREQUISITE(S): 90% or higher in Algebra 1

Algebra 2 (5330)

OTHER COURSE NUMBER(S): 6330

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7 - 12

LENGTH: Full Year

Algebra 2 is a rigorous, fast-paced course which concentrates on functions and graphs. Irrational numbers are studied and complex numbers are introduced. A solid foundation in Algebra 1 is essential for placement in this course. It is highly recommended that students purchase a graphics calculator for this course. The TI calculator will be used in class.

PREREQUISITE(S): Successful completion of Geometry and Algebra 1 AND Teacher Recommendation

CHS Algebra 2 (5335)

OTHER COURSE NUMBER(S): 6335

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7 - 12

LENGTH: Full Year

CHS Algebra 2 is a demanding course intended for highly-motivated students who have successfully completed Honors Algebra 1 and Honors Geometry. Course content focuses on algebraic properties, processes, and representations as well as families of functions and their graphs. In-depth exploration of enrichment topics is also provided. Students are strongly urged to purchase a graphing calculator for this course. Through a partnership with La Roche University, students may opt to pay and pursue a 3 credit MATH 1010 course: College Algebra. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): 80% or better in Honors Geometry AND 85% or better in Honors Algebra 1 (7) and teacher recommendation. La Roche requires a high school GPA of 3.0.

Pre-Calculus with Trigonometry (5338)

OTHER COURSE NUMBER(S): 6338

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full Year

This course is for the serious-minded student who wants to better his preparation for the Calculus and other higher mathematics. It consists of an extension of the skills of Algebra 2 with a major emphasis on functions: linear, polynomial, exponential, and trigonometric. Ten to twelve weeks of the course are devoted to a thorough study of trigonometry. A graphics calculator will be helpful for some of the content in the course.

PREREQUISITE(S): 70% or better in Algebra 2.

Introductory Statistics (5341)

OTHER COURSE NUMBER(S): 6341

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

This course is a one semester course designed for students who desire an option to Pre-calculus as a fourth year mathematics course. Students will learn the fundamentals of probability, methods of describing and displaying numerical and categorical data, and investigation of random variables and their distributions.

Personal Finance 1 (5347)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

Personal Finance 1 is designed to develop a class of financially literate students. They will have the knowledge, skills, and confidence to begin taking charge of their financial future. Budgeting, saving, making investments, and handling credit are financial skills that all individuals need to know. This course is recommended for any senior whether they are college bound or planning on entering the job market immediately upon graduation.

Trigonometry (5349)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

This course is designed as a fourth year option to Pre-calculus for students completing either Algebra 2 TE or Algebra 2 in their junior year. Topics covered include right-triangle trigonometry, angles and radian measure, trigonometric equations, trigonometric applications, identities and proofs, graphs of the sine, cosine, and tangent function.

CHS Pre-Calculus with Trigonometry (5355)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: Full Year

This course is for the serious-minded student who wants to better his/her preparation for Calculus and other higher mathematics. It explores the relationship between advanced algebra topics and trigonometry. Students are challenged to discover and comprehend the nature of graphs, nonlinear systems, and polynomial and rational functions. The course will also cover arithmetic and geometric sequences, conic sections, trigonometric proofs, Law of Sines, Law of Cosines, and mathematical induction. A graphics calculator will be helpful for some of the content in the course. Through a partnership with La Roche University, students may opt to pay and pursue a 3 credit MATH 1029 course: Pre-Calculus. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): 80% or better in Honors Algebra 2 or 90% or better in Algebra 2 along with teacher recommendation. La Roche requires a high school GPA of 3.0.

Advanced Placement Calculus AB (5357)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full Year

This is a first year course in calculus sequence intended for the academically accelerated student. AP Calculus AB is equivalent to a first semester calculus course at most colleges and universities. Topics include functions and their graphs, limits, the derivative, derivative applications, differentiation of exponential and logarithmic functions, integration and applications of the integral. A graphing calculator may be helpful for this course and will be used to help students solve problems, interpret results, and support conclusions in their coursework in Edgenuity. As we explore each topic, students will be required to analyze each one analytically, graphically, and numerically. Students are encouraged to take the Advanced Placement Exam given in May.

AP Statistics (5360)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 9 - 12

LENGTH: Full Year

AP Statistics is a full year mathematics course for students planning a career in business, math, science, education, engineering, accounting, law, medicine, or communications as well as those who have an interest in mathematics. Students are exposed to data exploration with a focus on describing patterns and departures from patterns, planning in conducting research studies, exploring random phenomena using probability and simulation, and estimating population parameters and testing hypotheses. The TI graphing calculator, statistical software MiniTab, and Excel will be used extensively. The students will be expected to take the AP Statistics exam given in May if they wish to earn college credits for the course.

SAT/ACT Mathematics Test Prep - FALL (5388)

CREDIT: 0.25

HOURS PER WEEK: 2.5 hrs

GRADE(S): 11 - 12

LENGTH: One Semester blended with SAT/ACT Math

This course is for the college bound student preparing to take the SAT and/or ACT during their junior or senior year. The course will focus on analyzing each of the test question areas and give special consideration to test taking strategies. Students will review algebraic concepts, geometric concepts, data analysis, and probability. This is a Pass/Fail Course.

COREQUISITE(S): 5183 SAT/ACT English Test Prep

SAT/ACT Mathematics Test Prep - Spring (5389)

CREDIT: 0.25

HOURS PER WEEK: 2.5 hrs.

GRADE(S): 11 - 12

LENGTH: One Semester blended with SAT/ACT Math

This course is for the college bound student preparing to take the SAT and/or ACT during their junior or senior year. The course will focus on analyzing each of the test question areas and give special consideration to test taking strategies. To prepare for mathematical elements, students will review algebraic concepts, geometric concepts, data analysis, and probability. . This course is a Pass/Fail course.

COREQUISITE(S): 5184 SAT/ACT English Test Prep

Personal Finance 2 (5348)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

This course is designed to add on to the skills and knowledge developed in Personal Finance 1. This cyber-only course is available to students who already completed and passed the first semester (classroom or cyber version) of Personal Finance 1. Students will gain a deeper understanding of topics including investing, credit, debt, bankruptcy, identity theft, insurance, and home rental and purchase.

PREREQUISITE(S): Personal Finance 1

Algebra 3 (5339)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

This course is designed as a third or fourth year option to Pre-calculus for students completing either Principles of Algebra 2 or Algebra 2 in their sophomore or junior year. Topics covered include factoring, binomial expansion, solving rational equations, solving radical equations, linear regression, quadratic functions, exponential functions, logarithmic functions, polynomial operations, and polynomial functions of a higher degree. Recommended to be taken in Junior year for Keystone Exam Requirements.

PREREQUISITE(S): Successful completion of Algebra 2

Computer Science 1 (5372)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course introduces students to the basics of Computer Science through a series of projects that allow for creativity and experimentation. Students will create a diverse portfolio of projects using Python, an open-source programming language used by professional programmers worldwide, as they learn about commands and functions, values and variables, GUIs, modular and object-oriented programming, and events and event-driven processes. The student must be able to read and follow detailed on-screen instructions and be able to save and open network computer files independently.

PREREQUISITE(S): Successful completion of one SV Cyber course. Also, students working at home must have access to a computer running Microsoft Windows and have the ability to install applications on that computer.

Computer Science 2 (5373)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

In part II of this introductory series, students will deepen their knowledge of Python and develop their programming skills through a series of complex programming projects that require creative thinking and problem solving. Topics include arrays and sets, generators and namespaces, loops, packages and libraries, and file handling. Students will also learn to program simple games.

PREREQUISITE(S): Computer Science 1. Also, students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Science and Mathematics in the Real World (5390)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: Semester

Science and mathematics are part of the STEM (Science, Technology, Engineering, and Mathematics) multi-dimensional strategy that can effectively sustain our twenty-first century knowledge-based economy. STEM careers provide a wide variety of opportunities to understand and address global issues. The most pressing issues of this generation include overpopulation, environmental degradation, pollution, and global warming. These are all subjects of intense and dedicated research by STEM professionals in very diverse fields. In this course, students will focus on how to apply science and mathematics concepts to the development of plans, processes, and projects that address real world problems, including sustainability and "green" technologies. This course also highlights how science and mathematics and the applications of STEM will be impacted due to the development of a greener economy. The course exposes students to a wide variety of STEM applications and to real world problems from the natural sciences, technology fields, and the world of sports, and emphasizes the

diversity of STEM career paths. The importance of math, critical thinking, and mastering scientific and technological skill sets is highlighted throughout. Challenging and enjoyable activities provide multiple opportunities to develop critical thinking skills and the application of the scientific method, and to work on real world problems using STEM approaches.

CHS Computer Information Systems (5654)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This course introduces students to the essential technical and professional skills required in the field of Information Technology (IT). Through hands-on projects and written assignments, students gain an understanding of the operation of computers, computer networks, Internet fundamentals, programming, and computer support. Students also learn about the social impact of technological change and the ethical issues related to technology. Throughout the course, instructional activities emphasize safety, professionalism, accountability, and efficiency for workers within the field of information technology. Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit COMP 101 course: Computer Information Systems. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): Successful completion of one SV Cyber course. Butler County Community College requires a high school GPA of: Sophomore 3.25, Junior 3.0, Senior 2.75.

Fundamentals of Programming and Software Development (5852)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Students will learn details about core concepts in programming using Java. Concepts include writing and debugging code, proper syntax, flow of control, order of operations, comparison operators, and program logic tools and models. They will learn the function of key program techniques, including if statements, looping, and arrays. They will also learn about web development using HTML and drag-and-drop development of user interfaces in an integrated development environment

COREQUISITE(S): Students working at home must have access to a computer running Microsoft Windows and have the ability to install software on that computer.

Performing Arts

All courses in this department are electives

CYBER TV & MOVIE PRODUCTION (5106)

CREDIT: 0.5

HOURS PER WEEK: 3

GRADE(S): 7

LENGTH: Full Year

Learn the fundamentals of online production through a hands-on project-based class. From the basics of video conferencing to creating a "How To" video, students will learn how to use editing software and a laptop camera. Skills will focus on framing, directing, editing, and acting.

CYBER: TV & Movie Production 2 (5116)

CREDIT: 0.5

HOURS PER WEEK: 3

GRADE(S): 7 - 8

LENGTH: Full-year

Using a HandsOn project-based course design Students will continue to build up their knowledge of Directing, Editing, Framing, Lighting, and Sound. Students will learn how to Broadcast from a studio using a multi-camera setup as well as how to shoot a scene on location and how to create an action scene and a short movie. Skills will focus on Camera movement, Boom pole position, using a green screen, Directors commands, and more.

Physical Education & Health

Phys Ed 7 (5701)

CREDIT: 0.4

HOURS PER WEEK: 1 hr online work & Fitness Log

GRADE(S): 7

LENGTH: Full Year

This course is a combination of online work and physical activity. Approximately 20 hours of online work will emphasize fitness basics and principles, health-related fitness components and movement in the body. The physical activity requirement includes 30 hours of logged activity (15 hours of aerobic and 15 hours of resistance) which is observed and documented by a professional in the fitness/physical activity field.

COREQUISITE(S): The physical activity requirement includes 30 hours of logged activity (15 hours of aerobic and 15 hours of resistance) which is observed and documented by a professional in the fitness/physical activity field.

Health 7 (5704)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: One Semester

This course provides students with an opportunity to study in areas of human health as it pertains to the maturing young adolescent. Area of study includes an in-depth approach to the student's ability in life saving techniques, while taking care of the body's circulatory system including CPR/AED training. Personal nutrition and fitness are strongly emphasized while introducing the importance to the other body's systems. Additional health education focuses on the problems dealing with the adolescent's ability to resist peer pressure, drugs, alcohol and negative social/emotional issues. Students will draw on their gained knowledge of course concepts, to build a strong character for making positive choices in their daily lives.

COREQUISITE(S): CPR/AED training must be attained/updated while enrolled in this course. Offerings are available at school or in the community.

Phys Ed 8 (5705)

CREDIT: 0.4

HOURS PER WEEK: 1 hr online work & Fitness Log

GRADE(S): 8

LENGTH: Full Year

This course is a combination of online work and physical activity. Approximately 20 hours of online work will emphasize fitness basics and principles, health-related fitness components, participation in sport and treatment for common sports injuries. The physical activity requirement includes 30 hours of logged activity (15 hours of aerobic and 15 hours of resistance) which is observed and documented by a professional in the fitness/physical activity field.

COREQUISITE(S): The physical activity requirement includes 30 hours of logged activity (15 hours of aerobic and 15 hours of resistance) which is observed and documented by a professional in the fitness/physical activity field.

Health 8 (5709)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: One Semester

This course examines the development of an adolescent as they change and grow. The class will focus on human anatomy while encouraging how to prevent illness in order to maintain wellness. The Health class also examines issues pertaining to the middle school student's personal development with an area of study in reproduction, AIDS education and sexually transmitted infections. Drugs, alcohol and other social environmental pressures that affect the areas of personal wellness are strongly emphasized. Other health related topics are addressed as they apply to the student for their wellness and character development for correct decision making in today's fast paced media rich environment.

Phys Ed 9 (5720)

CREDIT: 0.5

HOURS PER WEEK: 1.5 hr online work & Fitness Log

GRADE(S): 9 - 12

LENGTH: One Semester

This course is a combination of all previous Cyber PE courses. It is a blend of online work and physical activity. Approximately 20 hours of online work will emphasize developing and maintaining cardiorespiratory, muscular strength/endurance and flexibility fitness and body composition, fitness safety, skills for lifelong fitness and success in athletics, and designing a personalized fitness plan. The physical activity requirement will make up 50% of the student's grade.

COREQUISITE(S): CPR/AED training must be attained/updated while enrolled in this course. Offerings are available at school or in the community.

Phys Ed 10 (5730)

CREDIT: 0.5

HOURS PER WEEK: 1.5 hr online work & Fitness Log

GRADE(S): 10 - 12

LENGTH: One Semester

This course is a combination of all previous Cyber PE courses. It is a blend of online work and physical activity. Approximately 20 hours of online work will emphasize developing and maintaining cardiorespiratory, muscular strength/endurance and flexibility fitness and body composition, fitness safety, skills for lifelong fitness and success in athletics, and designing a personalized fitness plan. The physical activity requirement will make up 50% of the student's grade.

Health (5735)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

Health education provides students with practical knowledge that will enable them to maintain wellness throughout their lives. The course emphasizes intelligent decision-making and the need to take responsibility for ones' own health. Units studied are based on areas of concern to students in particular and the nation in general. Topics include, but are not limited to general wellness, mental health/disorders, nutrition, alcohol and drugs, sexuality, and health-related environmental issues. NOTE: Parents/guardians may opt for removal of HIV/AIDS content from their child's course with a written request to the teacher of record.

Introduction to Medical Careers (Doctoral Programs) (5725)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course is an overview of careers in the medical degree field and the overriding principles central to those professions. Students will have several opportunities to learn about the expanding scope of professional practice for various medical degrees. When students complete the course, they will be able to discuss the potential career choices and have an understanding of basic concepts that apply to these different choices. These career options typically require four or more years of post-secondary education. Careers discussed will include medical doctors, pharmacists, dentists, veterinarians and other doctors.

Introduction to Healthcare Careers (Certification/Associate degrees) (5726)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course is an overview of careers in the healthcare field that require either a certification or an Associate's degree, and the overriding principles central to those professions. Students will have several opportunities to learn about the expanding scope of professional practice for various medical and personal care certifications. When students complete the course, they will be able to discuss the potential career choices and have an understanding of basic concepts that apply to these different choices. These career options typically require less than four years of post-secondary education/training.

Introduction to Nursing Careers (5727)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course provides students opportunities to compare and contrast the various academic and clinical training pathways to an entry-level position in nursing. Students will also explore the growing number of opportunities for professional advancement given the proper preparation and experience. Students will have several opportunities to learn about the expanding scope of professional practice for registered nurses and better understand the important changes proposed in the education and ongoing professional development of nurses.

Introduction to Human Growth and Development (5728)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course is for students who have a desire to help others, but are unsure of specific path. This could include teachers, medical careers, counseling, etc. We focus on human growth and development over a life span. This is important as it gives a student a background in human growth and development from birth, through childhood, into adulthood, and through death and grief. It gives the student perspective and highlights where people in the caring professions are most needed.

Introduction to Social Work and Human Service Careers (5729)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course introduces students to the possibilities for careers in social work and human service professions. Through anecdotes, lessons, and a variety of assignments and projects, students will learn about the broad variety of jobs available in human services. Students will learn exactly what the human

services are and the ethics and philosophies of the helping professions. Students will study the impact of the cultural, social and economic environment on individual people, especially those who need social services assistance.

Introduction to Therapy-based Careers (5738)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course focuses on careers that help restore and maintain mobility and physical and mental health, such as physical therapy, occupational therapy, athletic training, dietetics, art therapy, neurotherapy and registered dental hygiene. Each career is explored in depth examining typical job duties, education requirements and working conditions. Key concepts and specific skill sets are introduced in the lessons, allowing students to apply what they have learned to therapy-based careers.

Introduction to Promoting Human Health Careers (5739)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

In this course, we discuss the multiple definitions of public health and the ways that these definitions are put into practice. We explore the five core disciplines (Behavioral Science/Health Education, Biostatistics, Environmental Health, Epidemiology and Health Services Administration) and the ways they interact to reduce disease, injury and death in populations. Also included is the connection between the Center for Disease Control (CDC) and World Health Organization (WHO) and their impact on promoting human health.

Phys Ed 11 (5740)

CREDIT: 0.5

HOURS PER WEEK: 1.5 hr online work & Fitness Log

GRADE(S): 11 - 12

LENGTH: One Semester

This course is a combination of all previous Cyber PE courses. It is a blend of online work and physical activity. Approximately 20 hours of online work will emphasize developing and maintaining cardiorespiratory, muscular strength/endurance and flexibility fitness and body composition, fitness safety, skills for lifelong fitness and success in athletics, and designing a personalized fitness plan. The physical activity requirement will make up 50% of the student's grade.

COREQUISITE(S): CPR/AED training must be attained/updated while enrolled in this course. Offerings are available at school or in the community.

Phys Ed 12 (5750)

CREDIT: 0.5

HOURS PER WEEK: 1.5 hr online work & Fitness Log

GRADE(S): 11 - 12

LENGTH: One semester

This course is a combination of all previous Cyber PE courses. It is a blend of online work and physical activity. Approximately 20 hours of online work will emphasize developing and maintaining cardiorespiratory, muscular strength/endurance and flexibility fitness and body composition, fitness safety, skills for lifelong fitness and success in athletics, and designing a personalized fitness plan. The physical activity requirement will make up 50% of the student's grade.

Introduction to Food Systems (5774)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs/week

GRADE(S): 9 - 12

LENGTH: Semester

This course explores the history and evolution of food products, along with the processing methods that have arisen to feed an ever-growing world population. Students will investigate the economic, environmental, and nutritional benefits of the food students are eating in a series of projects that supplement the studies and assessments. Health concerns and best practices in quality assurance, inspections, and labeling are reviewed. The course prepares students for a variety of possible educational and career pathways in the food industry. Students learn industry terminology in each area of the overall system, from "farm to fork" to vertical integration to smart packaging.

Reading

Reading is offered as a separate course in the 7th and 8th Grade Middle School. Reading is strongly coordinated with the English course and also incorporates the Common Core Standards.

Reading 7: Strategic Reading (5103)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: One Semester

This course is designed to help developing readers meet the demands of school and real-life reading situations. Learners will acquire the active reading skills necessary to independently utilize appropriate strategies for analyzing and comprehending increasingly complex texts in all content areas.

Reading 8: Critical Reading (5112)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: One Semester

This course is designed to help the strategic reader think critically by tapping student knowledge and experience, by stressing reasoning skills, and by encouraging a questioning attitude. The reading process is emphasized with a focus on comprehension, vocabulary development, analysis, and evaluation. Students learn to recognize and use more sophisticated patterns of organizing material as a means of learning and remembering information. As strategic readers who can take charge of their own reading, students are challenged to analyze, to respond, and to evaluate a variety of genres.

Science

In compliance with Seneca Valley School District policy and the graduation requirements of the Commonwealth of Pennsylvania, all students must pass a minimum of one class in each of the sciences including biology and chemistry.

Integrated Science 7 (5401)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: Full Year

This course focuses on life science and ecology. Students will investigate the characteristics of the biological kingdoms. Students will also explore the interaction of living organisms in various ecosystems and analyze real world environmental problems and solutions.

Integrated Science 8 (5410)

OTHER COURSE NUMBER(S): 4410

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: Full Year

This course will integrate chemistry and physical science as well as explore biological and ecological concepts. Emphasis will be placed on problem solving and critical thinking skills. This course will concentrate on making real world connections.

Biology (5428)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full Year

This high school course covers an in-depth view of biological science concepts. A brief section of biochemistry leads into an overview of ecology and the interactions of the environment and populations of living organisms. A comprehensive section on cellular biology and genetics exposes students to biology on a small scale that leads to the theory of evolution and the history of life on earth. The remainder of the course explores the complexity and variety of life on earth with sections devoted to simple organisms, plants, invertebrates and vertebrates as well as human biology.

Honors Biology (5435)

CREDIT: 1

HOURS PER WEEK: 2.5 + 4 online labs

GRADE(S): 9 - 12

LENGTH: Full Year

The core biology curriculum is designed to present an examination of the living world and related societal issues. Emphasis is placed on the scientific process, cells and cell processes, and the continuity and unity of life, including lab simulations. The course will include the characteristics and organization of life from the biosphere to the atom. This includes DNA, biochemistry, genetics, cell division, homeostasis and related processes. Honors Biology is a fast-paced, rigorous course in which the student is expected to be highly motivated to achieve at an honors level. Honors Biology investigates biological organization starting at a molecular level and culminating with living organisms and their inter-relationships. This course differs from Biology in depth, pace, and lab simulations. Note: Students receiving credit for Honors Biology and may not take Biology for credit.

Advanced Placement Biology (5436)

CREDIT: 1

HOURS PER WEEK: 7

GRADE(S): 10 - 12

LENGTH: Full-Year

Advanced Placement Biology is a college-level course designed to be the equivalent of a two-semester college introductory biology course and intended for students wanting to pursue further study in the biological sciences or research. Emphasis of the course includes chemistry of life, cells, cellular energetics, heredity, molecular genetics, evolutionary biology, diversity of organisms, structure and function of plants and animals, and ecology. Advanced Placement Biology has a strong emphasis on laboratory work and will expose students to lab techniques which include microbiology, computer modeling, and genetic engineering. Due to the large amount of content and fast pace within this course, students must possess a high degree of independence and self-motivation. In addition, students have the option of taking the Advanced Placement Biology examination for up to three college credits.

Honors Human Anatomy 1 (5441)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 11 - 12

LENGTH: One Semester

This semester course will examine the structures, functions, and interdependence of the human body systems. The course will cover the anatomy of the body (positions, planes, regions) and then move into the musculoskeletal system, nervous and sensory systems, cardiovascular system and the respiratory system. The course will conclude with a brief overview of the integumentary, lymphatic and immune systems. This course is recommended for those pursuing a career in the health science field.

Principles of Chemistry 1 (5460)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This one-semester course covers the foundation for the composition and structure of matter. Topics will include scientific method, measurement, matter, solids, liquids and gases, atoms, elements, and the periodic table. Lab simulations are used to enhance this course.

Principles of Chemistry 2 (5462)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This one-semester course is a continuation of the topics covered in Principles of Chemistry I. Topics will include bonding, chemical equations, acids & bases, an introduction to carbon-based chemistry and energy & resources. Lab simulations are used to enhance this course.

Chemistry (5464)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: Full Year

This year long high school course covers the foundation for the composition, structure, and reactions of matter. It addresses scientific measurements, the general properties of matter, and the structure of the atoms. Also covered are the periodic table, types of bonds, and chemical equations. Other topics involve introducing the states of matter, chemical reactions, the energy involved in chemical changes as well as a brief overview of nuclear chemistry. This course requires students to use math in calculations and conversions.

CHS Chemistry (5465)

CREDIT: 1

HOURS PER WEEK: 2.5 + 4 online labs

GRADE(S): 10 - 12

LENGTH: Full Year

This year long high school science course covers the foundation for the composition, structure, and reactions of matter. It addresses scientific measurements, the general properties of matter, structure of the atoms, the periodic table, types of bonds, and chemical equations. Other topics involve introducing the states of matter, chemical reactions, the energy involved in chemical changes as well as a brief overview of nuclear chemistry. This course requires students to have a solid foundation in math as calculations and conversions are basic components of chemistry. This course is designed to progress at a more rapid pace than the regular chemistry course and covers additional topics. Through a partnership with La Roche University, students may opt to pay and pursue a 3 credit CHEM 1001 course: General Chemistry 1 and 1 credit CHEM 1003 course: General Chemistry 1 Lab.

PREREQUISITE(S): 80% or better in Honors Biology or 90% or better in Biology and teacher recommendation. La Roche requires a high school GPA of 3.0.

COREQUISITE(S): Any level of Algebra 2 or higher.

Principles of Physics (5480)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This is an introductory course to the physics of mechanics. This course utilizes an online text and virtual lab-based learning approach to investigate the nature of science, concepts of motion, Newton's Laws, energy and momentum and their applications.

Physics: Models and Interactions (5484)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: Full Year

This course is designed for college-bound students. It provides the foundation for an understanding of the laws that govern the concepts of motion and energy. This course relies on the use of mathematics to represent and illustrate different phenomena, so students need to have a strong math background to be successful. Major themes in this course include mechanics, work and energy, electricity and magnetism, waves, light, sound.

Honors Physics (5485)

CREDIT: 1

HOURS PER WEEK: 2.5 + 4 online labs

GRADE(S): 10 - 12

LENGTH: Full Year

This course is designed for college-bound students. It provides the foundation for an understanding of the laws that govern the concepts of motion and energy. This course relies on the rigorous use of mathematics, including Algebra II and Trigonometry, to represent and illustrate different phenomena. Students must have a strong mathematical background to be successful. The Honors Physics course surveys a wider variety of content than the Physics course. Additional content includes circular motion, gravitation, atomic physics, interference and diffraction.

Astronomy (5488)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

The course of Astronomy is designed to give the high school student an introduction and appreciation for the universe beyond the earth. Emphasis is placed on atmospheric science in the first half of the course through lessons on weather and climate. The second half focuses on space science, exposing students to the interactions of the earth, moon, and sun and an overview of our solar system and the universe beyond. This is an elective science course.

Introduction to Anatomy (5440)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This semester course provides an introductory level study of the human body, its structure and function. The main focus of this course is a survey of each body system, including cells, tissues, and organs, and the homeostatic mechanisms of the body. This course would be especially useful for students whose ultimate goal is to enter the health care profession by providing a basic overview of vocabulary and purpose for body systems and parts.

PREREQUISITE(S): Successful completion of any level of Biology.

Ecology (5443)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course examines the environment and man's impact on it. The students will develop an understanding of what an ecosystem is and the elements that determine the types and numbers of organisms that live there. We will look at the atmosphere (air), the hydrosphere (water), and the lithosphere (soil) and how they sustain the biosphere (life), and how the biosphere interacts with each of the other spheres. Environmental science pairs with this course to provide insight into how humans affect these spheres.

Environmental Science (5444)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This semester course encompasses several major units which cover many aspects of environmental science including The Water; Energy and Resources; and Societies and Policy. Environmental Science contains Global Connections lessons which include unique activities that merge lesson material with real world issues pertaining to the environment. This course focuses on the impact human activity has had on ecosystems. We will also look at the role humans have had in the ecological spheres (studied in Ecology) and the impact these changes have had on the world.

Advanced Placement Environmental Science (5445)

OTHER COURSE NUMBER(S): 6445

CREDIT: 1.4

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: Full Year

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to

identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Students will be required to be on campus to complete multiple labs each nine weeks. These may be after school labs.

Animal Systems (5446)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

The role of animals in civilization has an ancient history, and this role is just as important today. For example, pigs have been domesticated in China for thousands of years and are still vital to our lifestyle today. What are their preferences for habitat and treatment, and what are their social and reproductive habits? Animals today are used for clothing, food, transportation, agriculture, herding, companionship, guide assistance, and crime fighting, and research continues to reveal new uses. As our scientific understanding of animal systems grows, so do our best practices, ethical considerations, and research applications. How mankind treats animals impacts their well-being and productivity. This course provides students with a wealth of information on livestock-management practices, animal husbandry, physiological systems, the latest scientific trends, and innovations in food production. Changes in practices, regulations, and legislation for animal welfare continue as new research provides solutions to medical, ethical, and practical concerns. This course reviews current topics, such as advancements in technology and research, and defines areas of discussion while maintaining focus on best-management practices. How research translates to management practices is a vital area of study and discussion.

Food Safety and Sanitation (5448)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

This comprehensive course will cover the principles and practices of food safety and sanitation that are essential in the hospitality industry for the protection and well-being of staff, guests and customers. This course will provide a systems approach to sanitation risk management and the prevention of food contamination by emphasizing the key components of the Hazard Analysis Critical Control Point (HACCP) food safety system. After successful completion of this course, students will be prepared to meet the requirements of state and national certification exams.

Agriculture: Plant Systems (5449)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

Plant Systems is a course that introduces students to the basics of plant biology, soil science, agriculture, and horticulture. Students will study the environmental management practices involved in each, including integrated pest management, biotechnology, growth techniques, and crop management. Students will learn the basic parts of a plant, how plants are scientifically classified, and how they interact with water, air, nutrients, and light to undergo the processes of photosynthesis and respiration. Plant reproduction, including pollination, germination, and dispersal of seeds, is also presented.

Global Science (5450)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Global Science is a one-semester elective course that serves as an introduction to various environmental and Earth sciences concepts. Environmental topics covered include: ecosystems and their dynamics, natural resources, conservation, watershed delineation, wetlands, and pollution. Earth

science concepts covered include: rocks and minerals, plate tectonics, meteorology, global warming, origins of the universe, the life cycle of stars and planetary motion.

Health Science A (5451)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This course introduces students to a variety of healthcare careers as they develop the basic skills required in all health and medical sciences. In addition to learning the key elements of the U.S. healthcare system, students will learn terminology; anatomy and physiology; pathologies; diagnostic and clinical procedures; therapeutic interventions; and the fundamentals of medical emergency care. Throughout the course, instructional activities emphasize safety, professionalism, accountability, and efficiency for workers within the healthcare field.

PREREQUISITE(S): Principles of Biology, Biology, or Honors Biology

Health Science B (5452)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

In the conclusion of this two-part course, students build on the knowledge gained in part A as they master the basic skills required of all healthcare professionals. In addition to learning the key elements of the U.S. healthcare system, students will learn terminology related to the following: anatomy and physiology; pathologies; diagnostic and clinical procedures; therapeutic interventions; along with the fundamentals of medical emergency care. Throughout the course, instructional activities emphasize safety, professionalism, accountability, and efficiency for workers within the healthcare field.

PREREQUISITE(S): Introduction to Health Science A

Scientific Discovery and Development (5453)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

This course focuses on "laboratory careers", where students can learn about multiple jobs in laboratory science. Each career is described with specific details pertaining to what professionals do for the career. For each career, students learn what is necessary in the areas of education and credentialing and will gain an understanding of the job outlook and salaries of these various professions. Students will also learn the science background related to many of these careers, as well as the major breakthroughs that have brought us to where we are today in laboratory science.

Scientific Research (5454)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

This course details scientific research from the point of view of a professional scientist. The lessons provide support, ideas, and specific language to guide students at their own pace through most of the steps, insights, and experiences they would eventually face if they continue through higher education toward a graduate degree. Knowing the practical, everyday basics of scientific thinking and laboratory activity also serves as a necessary first step to a career as a technician or a lab assistant. While these jobs are hands-on and technical, the intellectual and historical background covered in the course provides an awareness that is essential to working in such an atmosphere.

STEM and Problem Solving (5455)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

Science, technology, engineering, and math (STEM) are active components in the real world. This course will outline how to apply the concepts and principles of scientific inquiry, encouraging the use of problem-solving and critical-thinking skills to produce viable solutions to problems. Students will learn the scientific method, how to use analytical tools and techniques, how to construct tests and evaluate data, and how to review and understand statistical information. This course is designed to help students understand what is meant by problem solving and to help develop skills and techniques to create solutions to problems. Advanced problem-solving skills are necessary in all science, technology, engineering, and math disciplines and career paths. This problem-solving course stresses analytic skills to properly format problem statements, use of the scientific method to investigate problems, the use of quantitative and qualitative approaches to construct tests, and an introduction to reviewing and interpreting statistical information.

Advanced Topics in Chemistry (5468)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs

GRADE(S): 11 - 12

LENGTH: One Semester

This one semester course covers topics in chemistry such as thermodynamics, kinetics, equilibrium, acids and bases, electrochemistry and nuclear chemistry. These topics are not normally discussed in a first year chemistry course. Lab simulations and mathematical calculations are an integral part of this course.

PREREQUISITE(S): 70% or better in Chemistry or CHS Chemistry; 70% or better in Algebra II

Science of Forensics (5470)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hours

GRADE(S): 9 - 12

LENGTH: One Semester

This course is an overview of modern-day forensic science careers at work using science concepts to collect and analyze evidence. Modern-day forensic science practices exist because of the contribution of science and legal professions seeking ways to study crime scenes and criminal activities. This course will touch on some of the various applications of medicine in the field of forensic science. This course identifies science concepts and critical thinking in the area of forensic science. Following the presentation of the concepts, students are encouraged to conduct online research, exploring examples and applying the concepts learned. Links to case studies and interactive learning tools are supplied along with high-quality research sites. Projects are assigned throughout the course that allow students to actively apply the information just learned. These projects include simulated crime-scene investigation, actual DNA separation, development of a cybersecurity plan, and the identification of specific forensic skills used throughout a murder case. The focus of this course is to assist students in making career choices. Students who complete this course will gain an awareness of the diversity of careers available in the forensic field. In addition, attention is drawn to many similar careers in medicine and computer science. Included in this overview of careers is the consideration of job descriptions and availability, educational and training requirements, licensing and certification, and typical annual salaries. This course will allow students to survey the history and scope of present-day forensic science work, while also equipping them to make more informed career choices regarding the forensic and medical science fields.

Social Studies

The Social Studies Department is committed to preparing students as participants in a global society.

Adventures in World History (5201)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7

LENGTH: Full Year

Adventures in World History provides students with the opportunity to study civilizations and events that have shaped our modern world. The time frame of the course will include prehistory through the fall of the Roman Empire. This course will explore the relationship between physical geography and the development of human culture and civilization. Students will also examine political, cultural, and religious changes that have taken place throughout this time period while learning how historians use inferences and connections from reliable sources to examine the past. Through the use of essential questions, the course will provide a foundation for future social studies courses. The course will use the Edgenuity LMS.

Civics and Economics (5210)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8

LENGTH: Full year

This course provides the student with the opportunity to investigate the structure of the United States' political system and principles of contemporary economics. This course will include eighteen weeks of Civics instruction and eighteen weeks of Economics instruction. This course will focus on preparation of the student for adult participation in the political system and the economy. The course will use the Edgenuity LMS.

U.S. History I (5220)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

U.S. History I is a semester-long course that dynamically explores the people, places, and events that shaped early United States history. This course stretches from the Era of Exploration through Jacksonian Democracy, leading students through a careful examination of the defining moments that paved the way for the United States of today. Students begin by exploring the colonization of the New World and examining the foundations of colonial society. As they study the early history of the United States, students will learn critical thinking skills by examining the constitutional foundations of U.S. government. The course will use the Edgenuity LMS.

U.S. History 2 (5222)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

U.S. History II is a semester-long course that dynamically explores the people, places, and events that shaped early United States history. This course stretches from Manifest Destiny through the Industrial Revolution, leading students through a careful examination of the defining moments that paved the way for the United States of today. As they study the history of the United States, students will learn critical thinking skills by examining the constitutional foundations of U.S. government. Recurring themes such as territorial expansion, the rise of industrialization, and the significance of slavery will be examined in

the context of how these issues contributed to the Civil War and Reconstruction. The course will use the Edgenuity LMS.

Honors U. S. History 1 (5225)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

Honors U.S. History I is a semester-long course that dynamically explores the people, places, and events that shaped early United States history. This course stretches from the Era of Exploration through Jacksonian Democracy, leading students through a careful examination of the defining moments that paved the way for the United States of today. Students begin by exploring the colonization of the New World and examining the foundations of colonial society. As they study the early history of the United States, students will learn critical thinking skills by examining the constitutional foundations of U.S. government. Students will also collaborate with their classmates in discussions of historical events in the United States. The course will use the Edgenuity LMS.

Honors U. S. History 2 (5226)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

U.S. History II is a semester-long course that dynamically explores the people, places, and events that shaped early United States history. This course stretches from Manifest Destiny through the Industrial Revolution, leading students through a careful examination of the defining moments that paved the way for the United States of today. As they study the history of the United States, students will learn critical thinking skills by examining the constitutional foundations of U.S. government. Recurring themes such as territorial expansion, the rise of industrialization, and the significance of slavery will be examined in the context of how these issues contributed to the Civil War and Reconstruction. Students will also collaborate with their classmates in discussions of historical events in the United States. The course will use the Edgenuity LMS.

World History & Geography 1: 1350 - 1914 (5227)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This course provides interactive course content that will challenge high school students to learn about the political, economics, and social aspects from 1350 to 1914. This highly engaging, semester course encourages students to explore the major revolutions and social movements that have influenced different parts of the World. During this course, students will be exposed to a variety of pressing issues that have garnered opportunities for both conflict and cooperation in the modern world. The course will use the Edgenuity LMS.

World History & Geography 2: 1914 - Present (5229)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This course provides interactive course content that will challenge high school students to learn about the political, economics, and social aspects from 1914 to the present. This highly engaging, semester course encourages students to explore the major revolutions and social movements that have influenced different nations and eventually spread throughout the world. During this course, students will be exposed to a variety of pressing issues that have garnered opportunities for both conflict and cooperation in the modern world. The course will use the Edgenuity LMS.

Honors World History & Geography 1: 1350 - 1914 (5235)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This course provides interactive course content that will challenge high school students to learn about the political, economics, and social aspects from 1350 to 1914. This highly engaging, semester course encourages students to explore the major revolutions and social movements that have influenced different nations and eventually spread throughout the world. During this course, students will be exposed to a variety of pressing issues that have garnered opportunities for both conflict and cooperation in the modern world. The course will use the Edgenuity LMS.

Honors World History & Geography 2: 1914 - Present (5236)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

This course provides interactive course content that will challenge high school students to learn about the political, economics, and social aspects from 1914 to the present. This highly engaging, semester course encourages students to explore the major revolutions and social movements that have influenced different nations and eventually spread throughout the world. During this course, students will be exposed to a variety of pressing issues that have garnered opportunities for both conflict and cooperation in the modern world. The course will use the Edgenuity LMS.

Advanced Placement World History: Modern (5237)

OTHER COURSE NUMBER(S): 6237

CREDIT: 1

HOURS PER WEEK: 3.5

GRADE(S): 10

LENGTH: Full Year

This is a college-level course for qualified sophomores which chronologically explores the history and evolution of civilization beginning circa 1000 C.E. Themes will focus on: the interaction between humans and the physical environment; the development of culture and trans-nationalism; state-building, expansion, and conflict; and the development of economic systems and social structure. The course is designed to prepare students for intermediate and advanced college courses and may enable a student to earn college credits. It may not be accepted at all institutions without a minimum score of 3 on the National Advanced Placement Exam. The student should make the determination of whether he or she is applying to a college that accepts completion or examination credit.

U. S. History 3 (1898 - 1947) (5238)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

U.S. History III is a semester long course that examines the major events and turning points of U.S. history from the Industrial Revolution through the Great Depression. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on the United States rise to global prominence, the influence of social and political movements on societal change, and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and between multiple perspectives.

U. S. History 4 (5240)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

U.S. History IV is a semester-long course that examines the major events and turning points of U.S. history from World War II through the Modern World. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on the United States rise to global prominence, the influence of social and political movements on societal change, and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and between multiple perspectives.

Honors U.S. History 3 (5245)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

U.S. History III is a semester long course that examines the major events and turning points of U.S. history from the Industrial Revolution through the Great Depression. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on the United States rise to global prominence, the influence of social and political movements on societal change, and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and between multiple perspectives. Students will also collaborate with their classmates in discussions of historical events in the United States.

Honors U.S. History 4 (5246)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

Honors United States History IV U.S. History IV is a semester-long course that examines the major events and turning points of U.S. history from World War II through the Modern World. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on the United States rise to global prominence, the influence of social and political movements on societal change, and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and between multiple perspectives. Students will also collaborate with their classmates in discussions of historical events in the United States.

Advanced Placement United States History (5247)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: Full Year

A college-level course for qualified juniors and seniors covering the history of the United States from colonial times to the present; research, comprehension, and communication are emphasized. The course prepares students for intermediate and advanced college courses by making demands equal to those of a full-year level-one college course. The course may enable a student to earn college credits. It may not be accepted at all institutions without a minimum score of 3 on the national Advanced Placement Exam. The student should make the determination of whether he or she is applying to a college that accepts completion or examination credit. Students who register for this course as a senior will also need to fulfill the Economics and Government and Issues graduation requirement.

PREREQUISITE(S): 80% in AP World History or 90% in Honors World History with current Social Studies teacher recommendation. The course is designed with a heavy emphasis on reading and writing skills for those students who have successfully met the challenge of previous history and English courses.

Economics (5248)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: One Semester

Economics provides students with an understanding of the principles of economics. As they become familiar with how markets work, students interact with lessons to apply the key micro economic concepts of supply and demand as well as the role of prices. This course targets important aspects of the world economy, including international trade and global economic challenges, and encourages students to apply the economic way of thinking to a variety of situations relevant to their everyday lives.

Government and Issues (5250)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: One Semester

This semester-long course provides students with a practical understanding of the principles and procedures of government. The course begins by establishing the origins and founding principles of American government. After a rigorous review of the Constitution and its Amendments, students investigate the development and extension of civil rights and liberties. Lessons also introduce influential Supreme Court decisions to demonstrate the impact and importance of constitutional rights. The course builds on this foundation by guiding students through the function of government today and the role of citizens in the civic process and culminates in an examination of public policy and the roles of citizens and organizations in promoting policy approaches. Throughout the course, students examine primary and secondary sources, including political cartoons, essays, and judicial opinions. Students also sharpen their writing skills in shorter tasks and assignments, and practice outlining and drafting skills by writing full informative and argumentative essays.

CHS Economics (5255)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: One Semester

CHS Economics provides students with an understanding of the principles of economics. As they become familiar with how markets work, students interact with lessons to apply the key micro economic concepts of supply and demand as well as the role of prices. This course targets important aspects of the world economy, including international trade and global economic challenges, and encourages students to apply the economic way of thinking to a variety of situations relevant to their everyday lives.

Students will also collaborate with their classmates in discussions of local and recent economic activity. Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit ECON 102 course: Principles of Economics-Micro Approach. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): 80% in current Social Studies course and Social Studies teacher recommendation. Butler County Community College requires a GPA of: Sophomore: 3.25, Junior: 3.0, Senior: 2.75.

Honors Government and Issues (5256)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: One Semester

This semester-long course provides students with a practical understanding of the principles and procedures of government. The course begins by establishing the origins and founding principles of American government. After a rigorous review of the Constitution and its Amendments, students investigate the development and extension of civil rights and liberties. Lessons also introduce influential Supreme Court decisions to demonstrate the impact and importance of constitutional rights. The course builds on this foundation by guiding students through the function of government today and the role of citizens in the civic process and culminates in an examination of public policy and the roles of citizens and organizations in promoting policy approaches. Throughout the course, students examine primary and secondary sources, including political cartoons, essays, and judicial opinions. Students also sharpen their writing skills in shorter tasks and assignments, and practice outlining and drafting skills by writing full informative and argumentative essays. Students will also collaborate with their classmates in discussions of local and recent government activity.

Advanced Placement United States Government and Politics (5258)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 12

LENGTH: Full Year

Advanced Placement United States Government and Politics is a college level course for qualified seniors designed to prepare them to take the corresponding Advanced Placement College Board United States Government and Politics Examination. At the core of this class is an in-depth study of the U.S. Constitution. This course covers the study of general concepts used to interpret U.S. Government and Politics and an analysis of specific historical examples and case studies. The course gives students an analytical perspective on U.S. Government and Politics and requires students to investigate and become familiar with the institutions, groups, beliefs and ideas that comprise them. Students will become acquainted with a variety of theoretical perspectives, analyze patterns and data, engage in the election process through a campaign project, and be able to critically analyze political theory. Topics include the Constitutional underpinnings of U.S. Government, political beliefs and group behaviors, political parties, interest groups, impact of the media, institutions of national government, public policy, and civil rights and civil liberties. This course may enable students to earn college credit by taking the national Advance Placement Examination but credits may not be accepted by all institutions. Successful completion of this course also fulfills the economics requirement for graduation

CHS Sociology (5270)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

Providing insight into the human dynamics of our diverse society, Sociology is an engaging course that delves into the fundamental concepts of sociology. This interactive course, designed for high school students, covers cultural diversity and conformity, basic structures of society, individuals and socialization, stages of human development as they relate to sociology, deviance from social norms, social stratification, racial and ethnic interactions, gender roles, family structure, the economic and

political aspects of sociology, the sociology of public institutions, and collective human behavior, both historically and in modern times (Edgenuity). Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit SOCI 211 course: Principles of Sociology. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): Butler County Community College requires a high school GPA of: Sophomore: 3.25, Junior: 3.0, Senior: 2.75.

Introduction to Psychology (5273)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 11 - 12

LENGTH: One Semester

This course introduces students to the study of psychology and helps them to master fundamental concepts in research, theory and human behavior. Students analyze learning, personality and behavior from the perspective of major theories within psychology, including the biological, psychosocial and cognitive perspectives. From a psychological point of view, students investigate the nature of being human as they build a comprehensive understanding of traditional psychological concepts and contemporary perspectives in the field. The course will use the Edgenuity LMS.

Advanced Placement/CHS Psychology (5275)

CREDIT: 1

HOURS PER WEEK: 2.5 hrs

GRADE(S): 11 - 12

LENGTH: Full Year

This AP Psychology course introduces the systematic and scientific study of the behavior and mental processes of human beings and other animals. Included is a consideration of the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. An approved professional must proctor the unit and cumulative exams on campus or off-site. The proctor agreement must be completed prior to beginning the course. AP Psychology may not be used to replace US History 3 or 4. Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit PSYC 201 course: General Psychology. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

US and World History of the 1990's and Its Impact Today (5218)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: One Semester

This course will begin with a review of the Cold War leading to the collapse of the Soviet Union in 1991. Students will then address events that occurred during this decade from both a domestic and international perspective. Topics will range from the Cold War and its effects on the decade to the impact of Y2K. Students will have the opportunity to address every day aspects of the decade as well, including pop culture, politics, TV, movies, sports, fads, etc. This course will give students the opportunity to connect past events with the impact they have today.

Geography (5271)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 7 - 12

LENGTH: One Semester

Designed as a semester high school course, lessons explore global connections: tracing the development of modern civilization and human systems from the agricultural revolution to the technological revolution, and the development of the modern urban space. Students will also examine the effects of technology on societies and environments, including human movement, communications, climate change, and pollution.

CHS Human Geography (5274)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 10 - 12

LENGTH: One Semester

Examining current global issues that impact our world today, Human Geography takes a thematic approach to understanding the development of human systems and focuses on human understanding of the world and human social organization. Offering interactive content that will grow students' understanding of the development of modern civilization and human systems this course encourages students to analyze economic trends as well as compare global markets and urban environments. Through a partnership with Butler County Community College, students may opt to pay and pursue a 3 credit GEOG 101 course: World Geography. For more information about College in High School Courses (CHS), view the CHS Registration handout on the program menu or on the guidance webpage.

PREREQUISITE(S): Butler County Community College requires a high school GPA of: Sophomore: 3.25, Junior: 3.0, Senior: 2.75

Advanced Placement Human Geography (5276)

CREDIT: 1

HOURS PER WEEK: 3.5

GRADE(S): 10 - 12

LENGTH: Full Year

Designed to meet or exceed the experience of a college course, AP Human Geography examines the geographic processes and analyzes the spatial patterns evident in today's world. Students enrolled in this comprehensive course will explore the factors that have shaped human interaction, use and alteration of the Earth's surface while employing spatial concepts and landscape analysis to examine social organization and its environmental consequences. An approved professional must proctor the unit and cumulative exams on campus or off-site. The proctor agreement must be completed prior to beginning the course. Successful completion of AP Human Geography will fulfill the Government and Economics requirements for graduation. AP Human Geography may not be used to replace US History 3 or 4.

Law and Justice (5277)

CREDIT: 0.5

HOURS PER WEEK: 2.5 hrs

GRADE(S): 9 - 12

LENGTH: One Semester

The Legal Services course will provide students with an overview of the system of laws in the United States and the practice areas and career options in the field. Students will learn about how the legal system operates to control how society punishes those who commit crimes and settles disputes, as well as how criminal and civil cases reach court and are resolved. They will learn about the courtroom and the basics of a typical court case. Students will learn about constitutional rights and legal safeguards, as well as how technology has changed the practice of law. They will also learn about legal education and careers in law for attorneys and non-attorneys with an interest in the field.

Criminology (5279)

CREDIT: 0.5

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Semester Course

Life in the twenty-first century would not be possible without police officers, paramedics, firefighters, attorneys, corrections officers or security guards. In this course, students will learn about the many careers that exist within the fields of law, law enforcement, public safety, corrections, and security. Besides learning about the training and educational requirements for these careers, students will explore the history of these fields and how they developed to their current state. Students will also learn how these careers are affected by and affect local, state, and federal laws. Finally, students will examine the relationships between professionals in these fields and how collaborations between professionals in these careers help to create a safer, more stable society.

Security and Protective Services (5282)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours Per Week

GRADE(S): 9 - 12

LENGTH: One Semester

Do you know what it takes to keep an entire nation safe? Not only does this effort require knowledge on how to handle disasters, but it demands a cool head and tremendous leadership abilities. In National Security, you will have the opportunity to learn about the critical elements of the job, such as evaluating satellite information, analyzing training procedures, assessing military engagement, preparing intelligence reports, coordinating information with other security agencies, and applying appropriate actions to various threats. Put yourself in the position of the country's decisive leaders and develop your own knowledge base and skill set necessary to meet the requirements of our nation's most demanding career.

History of Agriculture (5283)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours Per Week

GRADE(S): 9 - 12

LENGTH: One Semester

In this course, students will apply understanding of ecosystems and systems thinking to the management of natural resources to maximize the health and productivity of the environment, agriculture, and communities. Students will also analyze community practice or policy development related to sustainability in agriculture, food, and natural resources. Students will be recognizing and researching government policy, "green" technologies, agribusiness principles, and sustainability systems.

AP European History (5284)

CREDIT: 1

HOURS PER WEEK: 2.5 hrs per week

GRADE(S): 10 - 12

LENGTH: Full-year

AP European History is designed to be the equivalent of a two-semester introductory college or university European history course. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing historical evidence; contextualization; comparison; causation; change and continuity over time; and argument development. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity. Successful completion of AP European History will fulfill the Government and Economics requirements for graduation. AP European History may not be used to replace US History 3 or 4.

Power, Structural, and Technical Systems (5285)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours

GRADE(S): 9 - 12

LENGTH: One Semester

Students will understand the historical changes in agriculture and how agriculture has changed to meet the needs of the future world population. Students will be introduced to machinery, structures, biotechnology, and ethical and professional standards applicable to agriculture power. Power, Structural, and Technical Systems provides students with an understanding of the field of agriculture power and will introduce them to concepts associated with producing the food and fiber required to meet today's and tomorrow's needs. This understanding gives students the opportunity to explore agriculture machinery, as well as structures and technological concepts. Students will understand the technological innovations that have contributed to changing the face of agriculture.

Agribusiness Systems (5286)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours

GRADE(S): 9 - 12

LENGTH: One Semester

Nearly 16 percent of total U.S. employment and 14 percent of the U.S. gross domestic product can be attributed to agribusiness systems, which means agriculture, food, and natural resources play a pivotal role in the economic success of our nation. Students will learn about the components of the agribusiness system and how they interact to deliver food to our tables. They will also learn about the key elements of a successful agribusiness enterprise: economics, financial management, marketing and sales, and government policies and regulations.

World War 2 Historical Events (5287)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours

GRADE(S): 9 - 12

LENGTH: One Semester

It's a war that never ends - cinematically speaking, that is. In this online course, students will focus on the relationship between World War II movies and history while stimulating media awareness and critical viewing skills as well as analyzing and interpreting historical events through feature films. The course will cover the major themes of World War II and a variety of films will be used. Students will analyze the entertainment value of the film versus the informational value. Within the course, students will analyze clips from the film and discuss how the film portrays the events of the time period. Propaganda film and the influence of Walt Disney will be discussed. Students will also have the opportunity to analyze films independently and reflect on the films of their choice.

Fire and Emergency Services (5290)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours

GRADE(S): 9 - 12

LENGTH: One Semester

Emergency and fire-management services are essential infrastructure components of a community. They provide a resource for dealing with numerous types of emergencies, including fires, motor vehicle, and industrial accidents, and medical emergencies. In addition, these services provide fire prevention and community-outreach programs. This course provides students with the basic structure of these organizations as well as the rules and guidelines that govern pre-employment education requirements. The vehicles, equipment, and emergency-mitigations strategies that are commonly used in the emergency- and fire-management field are also explored. Students will understand the goals of an emergency-management service and how they are implemented and managed, including personnel, budget, and labor-management challenges in the organization. Finally, the course also provides students with an overview of large-scale emergency incidents that overwhelm local agencies. Various preparedness plans are discussed. In the end, students will have been exposed to the typical

characteristics and framework of modern emergency- and fire-management organizations and will have a better understanding of a career in this field.

Law Enforcement Field Services (5291)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours

GRADE(S): 9 - 12

LENGTH: One Semester

The Introduction to Law Enforcement Services course will introduce students to the field of law enforcement and the local, county, state, and federal laws that law enforcement personnel are sworn to uphold. The student will also gain an understanding of the career options available in this field and the skills, education, and background experience needed to succeed in these careers. Students will learn about the evolution of the role of law enforcement in the United States and the interplay between individual freedoms and the government's need to protect the country. They will also learn about key changes affecting law enforcement following the September 11, 2001, terrorist attacks, including the creation of new laws, the restructuring of many departments within the federal government, and the creation of the Department of Homeland Security. Students will learn about the interaction between local, county, state, and federal law enforcement agencies. The lessons will emphasize the importance of interagency communication and information sharing. Students will learn about the technological advances and new federal programs that aid cooperation between agencies. Students will also learn about the types of crime that are commonly committed and the procedures, evidence collection techniques, and technological advances that law enforcement personnel use to investigate them. Students will learn how the development of computers and the Internet has changed the way many crimes are committed. They will also learn how investigators address the resulting increased globalization of criminal activity.

Introduction to Careers in Government and Public Administration (5292)

CREDIT: 0.5

HOURS PER WEEK: 2.5 Hours

GRADE(S): 9 - 12

LENGTH: One Semester

This course will provide students with an overview of American politics and public administration, including how political institutions and public management systems at the local, state, and federal levels exercise supervisory authority and maintain accountability. Students will learn about the foundations of the U.S. government, the separation of powers, the federal civil service system, and the relationship between the government and state and local officials. They will also learn about governmental powers of the states and of local governments, such as education, law enforcement, and transportation. Students will learn about politics in the United States and the electoral process, political attitudes and opinions, and American political parties. They will also learn about the structure of U.S. federal governmental institutions, the nature of bureaucracy, and the functions of the executive, legislative, and judicial branches of government. Students will also learn about policy making in American government, including discussions of foreign and defense policies. After completing this course, students will have a fundamental understanding of U.S. government and public administration. They will be able to explain the history and structure of the government, how the government functions and relates to state and local governments, and how the government creates and enforces public policies.

World Languages

All world language courses are Arts & Humanities electives. However, more colleges and universities are requesting 3 consecutive years of a language during high school (grades 9 - 12) as an admissions requirement.

French 1 (5520)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7 - 12

LENGTH: Full Year

This proficiency-based course is for students who are beginning their study of a foreign language. Active participation is required from each student as he/she develops written and oral communication skills as well as reading and listening comprehension of the language. This course will introduce basic vocabulary, grammar and verb tenses, which will be built upon in subsequent levels. Students will be introduced to various cultures as they are presented through thematic units. Note: Grade 7 does not count towards NCAA credit.

French 2 (5521)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 8 - 12

LENGTH: Full Year

This proficiency-based course builds upon skills mastered in level one. Listening, speaking, reading and writing skills are reinforced through proficiency-based activities. Students explore more complex grammar structures that are embedded in various texts at a more in-depth level. This course also requires more active participation from students so that they may develop better communication skills. Students will explore the culture as it is presented through thematic units.

French 3 (5522)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 9 - 12

LENGTH: Full Year

Students who are enrolled in French 3 will continue to improve their skills in speaking, writing, listening, and reading, with a particular emphasis on speaking and listening. French is used as the main language of communication in class. It is expected that students maintain French as much as possible in class, and outside of class, to refine their speaking and listening skills. There will also be greater emphasis on cultural and current events in France and the Francophone world, as well as introduction to authentic French literary texts. Students will be assessed according to their performance on spoken dialogues, conversations, presentations, listening activities, written exercises, and other communicative exercises.

French 4 (5523)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 10 - 12

LENGTH: Full Year

In addition to the programs used in French 3, the purpose of French 4 is to encourage original thinking, with greater emphasis on speaking, reading and writing skills. Students are expected to speak mostly in French. The speaking and reading is based on an anthology of history, culture and customs. There will be discussions about French history, modern French culture, and the regions of France.

German 1 (5530)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8 - 12

LENGTH: Full Year

This proficiency-based course is for students who are beginning their study of a foreign language. Active participation is required from each student as he/she develops written and oral communication skills as well as reading and listening comprehension of the language. This course will introduce basic vocabulary, grammar and verb tenses, which will be built upon in subsequent levels. Students will be introduced to various cultures as they are presented through thematic units. Note: Grade 7 does not count towards NCAA credit.

German 2 (5531)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 8 - 12

LENGTH: Full Year

This proficiency-based course builds upon skills mastered in level one. Listening, speaking, reading and writing skills are reinforced through proficiency-based activities. Students explore more complex grammar structures that are embedded in various texts at a more in-depth level. This course also requires more active participation from students so that they may develop better communication skills. Students will explore the culture as it is presented through thematic units.

Spanish 1 (5540)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7 - 12

LENGTH: Full Year

Created to be a two-semester course for high schools students that allows for an individualized development of the Spanish language through the study of the core grammatical structures and the vocabulary necessary for elementary communication. Spanish I also provides students with an introduction into the traditions and customs of Spanish-speaking people across the world.

Spanish 2 (5541)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 8 - 12

LENGTH: Full Year

In level 2 students continue to develop language skills in all four areas of communication: listening, reading, speaking and writing . At this level students expand their vocabulary knowledge and study more advanced grammar structures. Students will comprehend language at an increased level of complexity and speed. In addition, students develop an acceptance of diversity by exploring specific elements of the Latin-American culture.

Spanish 3 (5542)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full Year

Students enrolling in Spanish 3 will continue to develop their skills in listening, reading, and writing Spanish. Students will study topics such as technology, climate and nature, city, and the subjunctive mood of verbs. In Spanish III, students can expect to be challenged with advanced grammatical concepts and will be introduced to podcasts to provide and obtain information, express feelings and emotions, and exchange opinions.

Advanced Placement Spanish Language and Culture (5548)

CREDIT: 1

HOURS PER WEEK: 3.5

GRADE(S): 11 - 12

LENGTH: Full Year

The Advanced Placement Program in Spanish Language is intended for those motivated students who have chosen to develop and master their proficiency in all four language skills (listening, speaking, reading, and writing) in an intensive course, equivalent to that of a third-year college course in Advanced Spanish. Students who enroll should already have a well-developed knowledge of the language and culture of Spanish-speaking peoples and should have attained a reasonable proficiency in listening comprehension, speaking, reading, and writing. The course is taught almost exclusively in Spanish and the students are expected to speak entirely in Spanish as well. An approved professional must proctor the unit and cumulative exams on campus or off-site. The proctor agreement must be completed prior to beginning the course.

Spanish 4 (5543)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 10 - 12

LENGTH: Full Year

Students enrolling in Spanish 4 will continue to develop all four language skills, while working at a faster pace at a more in-depth level. They will apply their targeted language ability through increased readings of literature, increased exposure to authentic spoken language, and application of more advanced grammatical concepts, in addition to the usual cultural information, where emphasis is placed on the student of selected Latin American countries.

Latin 1 (5550)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 7 - 12

LENGTH: Full Year

Students begin their introduction to Latin with fundamental building blocks in four key areas including listening comprehension, speaking, reading, and writing. The course consists of 180 lesson days formatted in an intuitive calendar which represents an ideal blend of language learning pedagogy and online learning. Each unit also includes cultural presentations covering significant aspects of Roman culture or their modern-day manifestations, and assessments.

Latin 2 (5551)

CREDIT: 1

HOURS PER WEEK: 5

GRADE(S): 8 - 12

LENGTH: Full Year

Latin 2 is also a readings-based course, consisting of 180 lesson days formatted in an intuitive calendar view, which represents an ideal blend of language learning pedagogy and online learning. Units consist of vocabulary themes and numerous interactive games reinforcing grammar, reading and listening comprehension activities, speaking and writing activities, and cultural presentations covering significant aspects of Roman culture or their modern-day manifestations and assessments.

Mandarin Chinese 1 (5560)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 7 - 12

LENGTH: Full year

This is a beginning level course that will introduce the student to a variety of areas of Mandarin Chinese (simplified). In this course, the student will learn listening, speaking, reading, and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is sprinkled throughout the course in an attempt to help the learner focus on the Chinese speaking world and their culture, people, geographical locations and histories. The course is aligned to national Foreign Language standards. Learning activities in each unit are focused upon a specific theme including the following: Introduction to Chinese Language, Greetings, Numbers, My Family and School Life. This is an independent course please note that instruction is delivered by a non-Seneca Valley PA certified teacher. Seneca Valley staff cannot tutor or assist students with the content of the course.

Mandarin Chinese 2 (5562)

CREDIT: 1

HOURS PER WEEK: 2.5

GRADE(S): 9 - 12

LENGTH: Full-year

This course is a continuation of a beginning level course that will introduce the student to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the five units of material (daily routine, animals, hobbies, the body, and descriptions), students learn to express themselves using an ever increasing vocabulary, present tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is sprinkled throughout the course in an attempt to help the learner focus on the Chinese speaking world and their culture, people, geographical locations and histories. The course is aligned to the national Foreign Language standards. Learning activities in each unit are focused upon a specific theme including the following: Students talking about what they like to do in their free time, Their daily activities using a wide range of vocabulary and reflexive verbs, Animals and things animals do, The parts of their body and their function, People and Culture. This is an independent course please note that instruction is delivered by a non-Seneca Valley PA certified teacher. Seneca Valley staff cannot tutor or assist students with the content of the course.