

REDBANK VALLEY JR.-SR. HIGH SCHOOL
COURSE DIRECTORY

2023-2024



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ADVANCED CREDIT/HONOR COURSES

To recognize the students who challenge themselves by enrolling in an advanced or honors course, RVHS uses a weighted grading scale. Unlike a traditional course (worth a GPA of 4.0) these courses are worth more towards the final GPA.

The following courses hold a weight of 5.0:

- ★ Academic Biology 2 & Lab
- ★ Academic Anatomy/Physiology & Lab
- ★ Academic Calculus
- ★ Academic Spanish 3 & 4
- ★ Academic Chemistry 2 & Lab
- ★ Trigonometry/ Pre Calculus

The following courses hold a weight of 5.1:

- ★ AP English Literature & Composition
- ★ AP Government & Politics/Economics
- ★ AP Statistics

DEPARTMENT: AGRICULTURE SCIENCE

Course Name: Agricultural Science

Grade(s): 09 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** None

Description: Students in this course will be introduced to environmental resource management, food and fiber technology, agricultural engineering and technology. Units covered will include soil, water and wildlife management, processing, packaging and marketing agricultural products, workplace safety and safe operation of woodworking equipment. Students will complete laboratory exercises including construction of wood projects, soil and water testing as well as many others. Students will have the opportunity to develop leadership skills through participation in FFA activities.

Course Name: Horticulture Science I

Grade(s): 09 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** None

Description: This course is designed to give students a general overview of the horticulture industry with a scientific background in all aspects of the field. Topics that will be covered include, plant propagation, media, nutrients, fertilizers, growth regulators, biotechnology and pest management. Students will perform a variety of greenhouse management tasks, build hydroponic units, conduct research experiments, design plantings, and demonstrate salesmanship and record keeping skills. Students will also design and construct evergreen wreaths. Students will have the opportunity to develop leadership and career skills through FFA activities.

Course Name: Horticulture Science II & III

Grade(s): 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** Horticulture Science I

Description: This course is designed as a continuation of Horticulture Science I, to give students a more in depth experience in the horticulture industry. Greenhouse, nursery, landscape and floral design topics will be covered. Students will perform administrative functions, propagate plants, perform maintenance operations and sell crops. Students will have the opportunity to earn a private pesticide applicator license and develop leadership and career skills.

DEPARTMENT: BUSINESS/COMPUTERS

Course Name: Desktop Publishing 1-4 / Yearbook

Grade(s): 10 11 12 **Course Length:** 1 Year **Credits:** 1.0 **Prerequisite(s):** Multimedia recommended

Description: This class provides the basic to advanced procedures needed to use and produce pages for a complete school yearbook. Students learn design, desktop publishing, and photo editing skills. Students are required to utilize word processing, basic computer, and proof-reading skills. It is necessary to demonstrate or have an eye for creativity. Marketing skills will be used to sell the yearbook. All aspects of digital photography will be used. Students will learn how to scan, edit, and crop pictures.

Course Name: Google Suite

Grade(s): 09 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite:** None

Description: This course will allow users to create and edit documents online while collaborating in real-time with other users. It is a collection of applications that make it easier to produce the kinds of files commonly used in corporate environments: documents, spreadsheets, and presentations. In this google course, you will be given a basic introduction on how to use Google Docs. Topics covered in this course include: Google collaboration and the sharing of information online, Good Documents, Google Spreadsheets, Google Forms, Google Presentations and Google Sharing and other tips on how to use Google Docs.

Course Name: Career Options

Grade(s): 09 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite:** None

Students will gain valuable knowledge about themselves, schools, and workplaces. Soft skills, work ethics, and office & computer skills will be discussed and effectively used. Students will gain insight about their skills and personality type. Determine which path is applicable and research the career path. Narrow their career choices and learn all about the career and schooling. Complete an application for an entry level job and/or a college. Research entry level job requirements, college requirements, and/or military options. Establish a career portfolio.

DEPARTMENT: FAMILY CONSUMER SCIENCES**Course Name: Child Development**

Grade(s): 10 11 12 **Course Length:** 1 Year **Credits:** 1.0 **Prerequisite:** None

Description: This course outlines the stages of development pre-birth to adulthood. Healthy practices including proper nutrition and parenting skills are covered. The students have the opportunity to use robotic infants to simulate the responsibilities of being a parent.

Course Name: Foods 1

Grade(s): 9 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite:** None

Description: This elective is designed to help students build a strong foundation in wise food choices.

With an emphasis on nutrition, students develop basic competencies in family food planning, purchasing, and preparation.

Course Name: Foods 2

Grade(s): 9 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** Foods and You

Description: This course strives to familiarize the student with the latest technology in foods. The emphasis is on preparation techniques as applied to microwaving, outdoor cooking, and regional and ethnic foods, while strengthening consumer awareness.

Course Name: Food Safety Course (Safe Serve)

Grade(s): 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: This course will allow you the option to receive your ServSafe certification. ServSafe is defined as “a food and beverage safety training and certificate program administered by the National Restaurant Association. The program is accredited by ANSI and the Conference for Food Protection. Sanitation certification is required by most restaurants as a basic credential for their management staff.” The cost to receive your certification is \$15.00, you can choose to take this course for 0.5 credit but not pay to receive your certification.

DEPARTMENT: FINE ARTS (Music & Art)**Course Name: Art 1**

Grade(s): 09 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: This course is designed to give the student an idea of what is involved in an art elective course. Students will implement art techniques that can be used for drawing, painting, printmaking, and design projects. Students will be exposed to and tested on historical art events, vocabulary, and artists, while expressing constructive criticism and aesthetic views towards art that they view in group critiques.

Course Name: Art 2

Grade(s): 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** C or better in Art 1

Description: This course is designed to focus the student on the elements of art. Line, color, shape, space, value, texture, and form will be the objectives to follow for each of their individual projects. Students will review material from Art 1 and be exposed to and tested on historical art events, vocabulary, and artists not mentioned in Art 1. Students will also be expressing constructive criticism and aesthetic views towards art that they view in group critiques.

Course Name: Art 3

Grade(s): 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** C or better in Art 1 and Art 2

Description: This course is designed to focus the student on the principles of art. Balance, variety, harmony, emphasis, proportion, movement, rhythm, and unity will be objectives to follow for each of their individual projects, while still incorporating the elements on art practiced in Art 2. Students will review material from Art 1 and Art 2 and will be exposed to and tested on historical art events, vocabulary, and artists not mentioned in Art 1 and Art 2. Students will also be expressing constructive criticism and aesthetic views towards art that they view in group critiques. Time will also be given to produce two art projects of the artist choice enabling the student total art expression.

Course Name: Art 4

Grade(s): 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** C or better in Art

Description: Art 4 is designed to prepare the serious art student for experiences in a collegiate art based curriculum. Students will work on individual projects in various mediums and areas such as drawing, design, painting, printmaking, sculpture, ceramics, airbrush, and photography. Projects will follow the theme of the artist's own interests and creations. The goals of the course are as follows: 1. To further explain and demonstrate art mediums for all projects 2. To enhance the students experiences in the areas of history, production, criticism, and aesthetics of art 3. To encourage students to carry out various techniques, processes, and skills in their artwork 4. To create a complete portfolio from the 10+ projects done in class.

Course Name: **Piano 1**

Grade(s): 09 10 11 12 Course Length: Semester Credits: 0.5 Prerequisite: None

Description: In this course students will learn the basics of playing the piano, including reading music, technical skills, and posture. Students will each have a keyboard in which to practice the skills that are taught to the group. In addition, students will be directed individually as their skills develop.

Course Name: **Piano 2**

Grade(s): 10 11 12 Course Length: Semester Credits: 0.5 Prerequisite: None

Description: Students will continue to develop the basic piano playing skills/ music reading knowledge that was learned in piano 1

Course Name: **Senior High Band**

Grade(s): 09 10 11 12 Course Length: 1 year Credits: 1.0 (* or 0.5) Prerequisite(s): Junior High Band

Description: Introduces students to various types of music, including all musical styles of band. Students will develop an understanding of music and how it integrates into all other subject areas. Diverse aspects of music performance will be discussed such as: tempo, rhythm, dynamics, tone, quality, and articulation. Practice techniques, efficient use of time, and basic motivation will be stressed. From this class, students have the opportunity to advance to higher levels such as district chorus/band and regional chorus/band. This course may be repeated for additional credit. * This class may be taken for .5 credit (every other day all year) if the student is also taking Senior High Chorus (.5) or a Science lab during the same period.

Course Name: **Select Choir**

Grade(s): 9 10 11 12 Course Length: 1 year Credits: 1.0 or 0.5 Prerequisite(s): Admission by approval of director.

Description: This small group of singers, dancers or musicians will have the opportunity to perform more challenging music. This group will go beyond the Senior High Chorus to learn additional songs. From this class, students have the opportunity to advance to higher levels such as district chorus and regional chorus. They would prepare to perform for various events within the community. This course may be repeated for additional credit.

Course Name: **Senior High Chorus**

Grade(s): 09 10 11 12 Course Length: 1 year or Semester Credits: 1.0 or 0.5 Prerequisite(s): none

Description: Students will have the opportunity to perform various styles of music ranging from folk, pop, and foreign language pieces. Diverse aspects of music performance will be discussed such as: tempo, rhythm, dynamics, tone, quality, and articulation. From this class, students have the opportunity to advance to higher levels such as district chorus and regional chorus. Students will be graded each nine weeks, based on participation and audition. This course may be repeated for additional credit.* This class may be taken for .5 credit (every other day all year) if the student is also taking Senior High Band (.5) or a Science lab during the same period.

DEPARTMENT: HEALTH/PHYS. ED/DRIVER'S EDUCATION

Course Name: **Driver Theory I**

Grade: 10 11 12 Course Length: 18 Weeks Credits: 0.25 Prerequisite: None

Description: During the course, students are given instructions on state laws of our highways, as well as driving techniques, automobile maintenance, upkeep, and the costs involved in keeping an automobile running and road safe. Knowledge gained from classroom work can be employed to behind the wheel application.

Course Name: **Health 11**

Grade(s): 11 Course Length: Year Credits: 0.5 Prerequisite(s): None

Description: This health course is designed to place an emphasis on problems that most often affect the healthy life of young adults.

Course content includes units on stress, mental disorders, preventing violence, family living, pregnancy and birth, CPR, first aid, infectious and non-infectious diseases, food and nutrition, and choosing health care. Completion of this course will give the student vital information on how to avoid certain health problems and how to maintain a good attitude about their own health and that of their present and future families.

Course Name: Adaptive Physical Ed (Co-ed)

Grade(s): 09 10 11 12 **Course Length: Year** **Credits: 0.5** **Prerequisite(s): Medical, social, or psychological situations that warrant the waiver of the regular physical education curriculum.** **Description:** The adaptive physical education course is designed to meet the special needs of those students who are limited in any way in their capacity to participate in the normal physical education class. The major emphasis is placed on lifetime sports requiring moderate activity. Such sports as golf, archery, bocce, bowling, horseshoes, badminton, basketball, and other similar sports are explored. Each student must submit a doctor's prescription of activity to be followed by the teacher.

Course Name: Senior High Physical Education

Grade(s): 09 10 11 12 **Course Length: Year** **Credits: 0.5** **Prerequisite: None**
Description: The emphasis of the physical education course is two fold: (1) to promote overall physical fitness through daily exercise, and (2) to instruct the students in the skills needed for team sports. In all phases of our program, we stress sportsmanship and strict adherence to the rules. Emphasis on this level of physical education is based on team sports such as softball, volleyball, basketball, flag football and soccer. Students will participate in individual sports such as fitness, track and field, handball, and weight training. Through participation, the student will gain a working knowledge of rules, as well as techniques involved with each sport or activity. Repetition of skills will enable students to improve their own level of competition. The student will experience the atmosphere of low level competition, while being involved in quality activities which will help gain a good level of fitness.

DEPARTMENT: LANGUAGE ARTS

Course Name: Academic English 9

Grade(s): 09 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s): C or better in prior English Course**
Description: This course is designed to give the students exposure to a large variety of genres while enhancing their writing and communication skills. The major genres covered are Shakespearean literature, epic poetry, short stories, non-fiction, and modern writings. Toward the end of the year, all ninth grade students will take the KEYSTONE Literature Assessment. Students will show language arts proficiency in reading different genres, writing in different mediums, and communication skills through presentations as well as small and large group discussions.

Course Name: Applied English 9

Grade(s): 09 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s): None**
Description: This course is designed to give the students exposure to a large variety of genres while enhancing their writing and communication skills. The major genres covered are Shakespearean literature, epic poetry, short stories, non-fiction, and modern writings. Toward the end of the year, all ninth grade students will take the KEYSTONE Literature Assessment. Students will show language arts proficiency in reading different genres, writing in different mediums, and communication skills through presentations as well as small and large group discussions.

Course Name: Academic English 10

Grade(s): 10 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s): C or better in prior English Course**
Description: This course is designed to incorporate an integrated approach combining reading, writing, speaking, & listening. Students will be developing critical thinking, communication, and grammar skills. There will be an emphasis on reading comprehension, as well as literary analysis through a study of folklore. Also, research writing and public speaking will be major areas to be explored. Finally, an extensive vocabulary study will be presented to students to assist with standardized test preparations (SAT, ACT, GRE, etc.)

Course Name: Applied English 10

Grade(s): 10 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s): None**
Description: The first half of the year, this course focuses on the eligible content outlined in Module 1 and Module 2 of the Pennsylvania Department of Education's "Keystone Exams: Literature Assessment Anchors and Eligible Content." Throughout this semester, the

curriculum will emphasize review and remediation of Keystone glossary terms, vocabulary, literary practice, informational text practice, and open-ended writing strategies and practice. The second quarter will focus on improving writing skills through extensive argumentative writing, research, and applicable grammar concepts.

Course Name: Academic English 11

Grade: 11 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** C or better in prior English Course

Description: This class is an integrated study of literature, writing, vocabulary, grammar and usage. The focus of all activities is the development of critical thinking and communication skills. Literature units are thematically grouped around core pieces of British literature, supplemented with selections from other cultures. Cooperative learning and group activities, as well as a great deal of writing, are primary methods of instruction. Students will be expected to utilize appropriate technology to further their 21st century literacy. Designed for college-bound students, this course also includes MLA formatting, career exploration, and the college application process.

Course Name: Applied English 11

Grade: 11 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** None

Description: This class is an integrated study of literature, writing, vocabulary, grammar, and usage. The focus of all activities is the development of critical thinking and communication skills necessary to become a productive member of the working world. Cooperative learning, group activities, and writing are primarily methods of instruction. Projects and presentations completed individually, as well as with groups, are also used to prepare students for real-world experiences.

Course Name: Honors English 11 | (*Honor; holds a weight of 5.0 towards final GPA*)

Grade: 11 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** Teacher recommendation; at least a B in previous year's English 10 class; desire for accelerated study of English; and department approval. **Description:** Honors English 11 is an advanced course, designed for pre-college students. It is an accelerated extension of Academic English 11 (see above), adding depth and connections to the primary selections. This course is for those students who demonstrate a serious commitment to the study of literature and writing. Intensive, independent reading and writing will be required.

Course Name: AP English Literature and Composition | (*A.P.; holds a weight 5.1 towards final GPA*)

Grade: 12 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** At least a B in the previous year's English class and department approval. **Description:** AP English Literature and Composition is designed to be a college level course. Students will read literature ranging from the sixteenth century through today, including several different genres. Higher levels of writing will also be required. Students should expect a rigorous English experience with intellectual challenges and a considerable workload, including summer work. Students will have the option to take the AP English Literature and Composition Exam in May. By earning a 3 or higher on the exam, the student will be awarded college credit, accepted at many colleges and universities. ***This course is available for dual enrollment credits.**

Course Name: English 12

Grade: 12 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** None

Description: The main goal of this course is to help students become creative, critical thinkers and prepare for entry into the work field and/or continuing education. All assignments and lessons are created with this goal in mind. The work in Senior English is geared toward the following areas: communication skills (formal and informal); standard English usage; basic writing skills; research; and literature.

Course Name: Media Literacy

Grade(s): 9 10 11 12 **Course Length: Semester** **Credits: 0.5** **Prerequisite(s):** Instructor Approval

Description: Instruction that is clearly connected to today's modern world is vital to student engagement. This introductory study of broadcast journalism aims to analyze and use mass media communication. Instruction will begin in the area of media literacy by examining messages that come to us through mass media. As a natural class progression, we will move more toward a hands-on, production based curriculum model. A primary aim of the course is to prepare students to produce/operate RVTV, Redbank Valley School's daily news program.

Course Name: Media Production 2, 3 & 4

Grade(s): 10 11 12 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** Completion of Broadcast Journalism I

Description: The purpose of this course is for students to continue to develop proper filming techniques, lighting, video capture, and video editing. Students will be learning all aspects of creating a news broadcast. Students will be reading, writing, and producing pieces about current

. Students will be learning all aspects of creating a news broadcast. Students will be reading, writing, and producing pieces about current events within school, local, and national parameters. Students will be required to film school activities during school as well as after hours. Students will rotate production assignments each week. The primary objective for this course is to develop and produce RVTV, a daily, student-run news program.

DEPARTMENT: MATHEMATICS

Course Name: **Academic Algebra 1**

Grade(s): 09 10 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Pre-Algebra

Description: Academic Algebra covers all the topics required to meet local and national testing and curriculum guidelines. The course reinforces material from previous math courses and prepares students for future math study.

Course Name: **Academic Algebra 2**

Grade(s): 09 10 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Grade of C or better in Academic Geometry.

Description: This course amplifies and extends the topics learned in Algebra I and Academic Geometry. Practice and mastery is gained in the fundamental topics of Algebra - equations, graphs, basic techniques of solving word problems, percent, ratio, exponents. New topics include complex numbers with non-zero imaginary parts, radical equations, variable exponents, and systems of nonlinear equations. Absolute value inequalities are also introduced. This course provides the mathematical background needed for success in advanced science and math courses.

Course Name: **Applied Algebra 2**

Grade: 10 Course Length: 1 year Credits: 1.0 Prerequisite: Did not prove Proficiency on Keystone Exam

Description: This class will be focused on the Keystone Algebra 1 standards for those students who did not pass the Keystone Exam. The concepts involving equations, graphs, techniques of solving word problems, exponents, radical equations, variable exponents, and systems of nonlinear equations will be expanded upon to include polynomials and quadratic equations.

Course Name: **Academic Geometry**

Grade(s): 9 10 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Grade of C or better in Algebra 1

Description: Geometry begins with a preview of the concepts and information that the students will learn throughout the year. Students will discuss points, lines, planes, and polygons. They will discover area and volume formulas and they will be introduced to Trigonometry. They will solve a variety of problem types including word problems, multiple-angle problems, and problems that involve solving for different variables in a formula.

Course Name: **Academic Trigonometry/Pre-calculus** | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade(s): 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Grade of C or better in Academic Algebra 2

Description: Precalculus expands the study of functions, including polynomial, exponential, logarithmic and trigonometric functions introduced in Algebra 2. The course also includes topics from analytic geometry and includes a heavy emphasis on trigonometry. Throughout this course students will be performing calculations, using vocabulary, discovering and applying mathematical principles, thinking logically, and translating real-life situations to mathematical models, obtaining solutions, and then translating solutions back again into real-life contexts. Students will be learning and practicing effective note taking strategies, vocabulary development, reading comprehension of mathematical text, communicating mathematical ideas in writing, organization skills, test taking strategies, and reflective learning

Course Name: **Academic Calculus** | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade: 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Grade of C or better in Academic

Trigonometry/Pre-Calculus Description: This course is designed for students who desire a good foundation for college calculus. It includes an intensive review of the topics from algebra, trigonometry, and analytic geometry that are necessary for success in calculus. Technology is included where appropriate and incorporates real life problems and skills. The course includes coverage of the essential topics normally taught in the first semesters of the college calculus sequence (differential and integral calculus).

Course Name: **Consumer Math**

Grade: 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): This course is not appropriate for students who have successfully completed Algebra 2, Trigonometry, Calculus, or any other upper division math courses

Description: This math course includes a good review of arithmetic for the individual, the earner, and the consumer. It is also the last mathematics many of the students will have; therefore we try to teach basic principals and apply them to practical problems. Students will work with basic algebra and geometry, as well as coping with everyday problems such as checking accounts, banking, taxes, insurance, etc. **Emphasis will be placed on meeting the Pennsylvania standards.**

Course Name: **Probability and Statistics & Problem Solving** | (*Honor Course; holds a weight of 5.0 towards final GPA*)

Grade: 12 **Course Length:** 1 Year **Credits:** 1.0 **Prerequisite(s):** Passing grade in Algebra 2

Description: This course is designed to provide the student with a comprehensive treatment of introductory statistics and probability. The nature and importance of statistics and probability will be discussed. Major areas of statistics and probability will be identified, compared, and studied. This course will concentrate on collecting, analyzing, interpreting, and applying statistics in various areas such as sociology, business, ecology, economics, education, medicine, psychology, and mathematics. Problem solving has been defined as what to do when you don't know what to do. The basis for this class is the teaching and learning of strategies that people in the workplace, in their homes, in the shopping mall, on vacation, or wherever, use when solving problems. Students will learn general, wide-ranging strategies for solving problems. From the general format, they will develop and apply specific problem-solving strategies, communication skills, and attitudes. This course will not be conducted as a typical or traditional math class. Students will use their books and each other as much as, or more than, the teacher as sources of information. Students will be primarily working in group situations to make conjectures, express ideas, and ask questions to solve problems while learning to collaborate with other people. Students will be expected to verify and evaluate their own work and the work of others in class. They will learn to become analytical and critical thinkers.

Course Name: **AP Statistics** | (*A.P.; holds a weight of 5.1 towards final GPA*)

Grade: 12 **Course Length:** 1 Year **Credits:** 1.0 **Prerequisite(s):** Students must have successfully completed Algebra 2 before enrolling in AP Statistics
Description: The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

DEPARTMENT: SCIENCE

Course Name: **Ecology**

Grade: 10 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: This course includes an overview of ecosystem interactions and relationships occurring among all levels of ecological organization, the impacts of living and nonliving factors affecting both terrestrial and aquatic ecosystems. It will also include a detailed look at the transfer of energy and matter throughout an ecosystem, ecosystem response after a disturbance, population dynamics, and evolutionary theory.

Course Name: **Physical Science 9**

Grade: 9 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** None

Description: Students are introduced to chemistry and physics concepts, such as matter, atoms, the Periodic Table, chemical reactions, solutions, acids, bases, forces, motion, heat, and waves. Investigative techniques are used to give the student a basis for developing skills needed for more advanced classes such as biology, chemistry and physics. This class provides important groundwork for future Keystone science exam courses. Math is emphasized.

Course Name: **Academic Biology 1 and Lab**

Grade: 9 **Course Length:** 1 year **Credits:** 1.5 **Prerequisite(s):** Grade of C or better in prior class

Description: Students should expect to utilize critical thinking skills in various aspects of biology. Emphasis will be placed on the study of life as it originates at the cellular level. Starting with an introduction to biochemistry and discussion of what constitutes life, students will enter the study of cell biology in terms of structure and processes. Following will be an extensive look into genetics and biotechnology, fields highly relevant to medicine, agriculture, and many other aspects of today's world. Finally, students will be introduced to the theory of evolution, especially in reference to changes in past and modern species by natural selection. Coursework and evaluation will include cooperative learning activities, homework, lab work, projects, and chapter tests. This course includes a lab period every other day in addition to the regular class period.

Course Name: **Keystone Biology**

Grade(s): 10 11 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: In this course, students will be expected to master the eligible content outlined in Module A and Module B of the Pennsylvania Department of Education's "Keystone Exams: Biology Assessment Anchors and Eligible Content."

Course Name: **Environmental Science**

Grade: 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Biology

Description: The scope of the environmental science class is to expand upon topics learned in the biology and ecology courses (grades 9 or 10); through class discussions and projects, hands-on activities (both in the classroom and the local environment), and real world problem solving. Major emphasis will be placed on Pennsylvania ecosystems and organisms. This course will foster a positive connection between the students and their environment (locally, statewide, nationally, and internationally)

Course Name: **Applied Biology 1**

Grade: 10 Course Length: 1 year Credits: 1.0 Prerequisite(s): None

Description: This course will begin with an introduction to basic biological principles and characteristics of life. Then, the course will cover the major units within biology including the chemistry of life, bioenergetics, homeostasis and transport, DNA, RNA, and protein synthesis, cellular growth and division, patterns of inheritance, and biotechnologies.

Course Name: **Academic Biology 2 and Lab** | (*Honor Course; holds a weight of 5.0 towards final GPA*)

Grade(s): 10 11 12 Course Length: 1 year Credits: 1.5 Prerequisite(s): Biology 1

Description: Students will build on their understanding and recollection of Biology I coursework. Therefore, proficiency on the Biology Keystone exam is strongly recommended before enrolling in this course. The course will start with a review of the organization of life, the diversity of life, properties of water, cells, and cell division. Then organic chemistry, macromolecules, photosynthesis, cellular respiration, genetics, and evolution will be studied. This course is offered every other year. ***This course is available for dual enrollment credits.**

Course Name: **Biology 2B**

Grade: 10-12 Course Length: 1 year Credits: 1.0 Prerequisite(s): Biology 1

Description: The first semester of the course will include an expanded look at genetics and evolution, building on the Academic Biology 1 curriculum. During the second semester, emphasis will shift to new content that includes gene expression, genomics, biotechnology, and viruses. Additionally, students will have opportunities to research and perform laboratory experiments related to modern biotechnologies such as gel electrophoresis, polymerase chain reaction (PCR), cloning, genetically modified organisms (GMOs), gene therapy, gene editing (CRISPR), transgenic organisms, vaccines, and antibiotics. In addition to an appropriate text, resources from HHMI Biointeractive, Learn.Genetics, and other similar websites will be utilized to deliver relevant content and activities.

Course Name: **Acad. Physiology/Anatomy and Lab** | (*Honor Course; holds a weight of 5.0 towards final GPA*)

Grade(s): 10 11 12 Course Length: 1 year Credits: 1.5 Prerequisite(s): Biology 1

Description: This is a college-prep course which includes a comparative study of the structure and function of the human and feline bodies and mechanisms for maintaining homeostasis within them. The study of human anatomy and feline dissection will include a survey of the systems of the body with an emphasis on the following systems: skeletal, muscular, digestive, circulatory, respiratory, nervous, reproductive, excretory, and circulatory. Physiology studies will include both the structure and function of organs and organ systems located during dissection. This course is offered every other year. ***This course is available for dual enrollment credits.**

Course Name: **Academic Chemistry 1 and Lab**

Grade(s): 10 11 12 Course Length: 1 year Credits: 1.5 Prerequisite(s): None

Description: This course focuses on the branch of Inorganic Chemistry. Students will begin with topics such as measurements, atoms, molecules, chemical bonding and structures, nomenclature, as well as periodicity. Students will then work through more math-based problem-solving topics such as chemical reactions and equations, stoichiometry, gas laws, and solutions. The students will also have the opportunity, through lab periods and lab reports, to apply concepts and techniques learned in class to relevant real-life & laboratory situations.

Course Name: **Academic Chemistry 2 and Lab** | (*Honor Course; holds a weight of 5.0 towards final GPA*)

Grade(s): 11 12 Course Length: 1 year Credits: 1.5 Prerequisite(s): Successful completion of Chemistry 1

Description: This course is centered around the branch of Inorganic Chemistry as well as an introduction to Organic Chemistry. The students will begin by reviewing topics from chemistry I and then essentially continue where the first course stopped. They will learn

topics such as solutions, acids and bases, equilibrium, reaction kinetics and energy, nuclear chemistry and oxidation-reduction reactions.
*This course is available for dual enrollment credits.

Course Name: Organic Chemistry

Grade(s): 11 12 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** Successful completion of Chemistry 1

Description: This Organic Chemistry course is intended for students majoring in chemistry, chemical engineering, biology, or studying for careers in the health sciences such as pharmacy, medicine, veterinary, and chiropractic. Fall semester topics include: structure and bonding, acids and bases, alkanes and cycloalkanes, reaction energetics, stereochemistry, nucleophilic substitution and elimination, alkenes, alkynes, NMR and IR spectroscopy, alcohols, and introduction to multistep synthesis. Spring semester topics include: UV-visible and IR spectroscopy, mass spectrometry, aldehydes and ketones, carboxylic acids and derivatives, chemistry of aromatic compounds, and multistep synthesis.

Course Name: Applied Physics 1

Grade(s): 11 12 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** Trig/Pre-calc

Description: Applied Physics is designed to be a conceptual oriented course. The course will discuss kinematics in one and two dimensions, Newton's laws of motion, gravitation and circular motion, work and energy, momentum and collisions, thermo/ fluid dynamics, vibrations and waves, sound, geometric optics and light, electrical circuits, magnetism, and possibly more. This course will be hands on in nature with many labs and demonstrations. There are no mathematical prerequisites to take this course.

Course Name: Academic Physics 1 and Lab

Grade(s): 10 11 12 **Course Length: 1 year** **Credits: 1.5** **Prerequisite(s):** Trig/Pre-calc

Description: Physics I will introduce classical Newtonian physics at a first semester college level. The course will require a strong understanding of algebra and trigonometry. Topics discussed in Academic Physics I throughout the year will include, kinematics in one and two dimensions, Newton's laws of motion, gravitation and circular motion, work and energy, momentum and collisions, vibrations and waves, sound, geometric optics and light, and possibly more!

Course Name: Academic Physics 2 and Lab | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade: 11, 12 **Course Length: 1 year** **Credits: 1.5** **Prerequisite(s):** C or high in Academic Physics I Students who took Applied Physics I will not be eligible for Academic Physics II until taking Academic Physics I and earning a C or higher.

Description: Academic Physics II will further investigate classical Newtonian physics at a second semester college level. The course will require a strong understanding of algebra, trigonometry, and pre-calculus. Topics discussed in Academic Physics II throughout the year will include mechanics, properties of matter, heat, sound, electricity, magnetism, light, and atomic and nuclear physics.

DEPARTMENT: SOCIAL STUDIES

Course Name: U.S. History 9

Grade: 09 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** Passing grade in seventh and eighth grade history

Description: United States History 9 is a comprehensive study of the geographic, cultural, social, economic, and political developments in the United States, beginning with the Discovery of the Americas, Colonial America, the American Revolution, Westward Expansion, and ending with the Civil War. This program lays the groundwork for American History and paves the way for future understanding of how our history has shaped the United States of today.

Course Name: U.S. History 10

Grade: 10 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** US History 9

Description: U S History 10 is a comprehensive study of the geographic, cultural, social, economic and political developments in the United States during the period from about 1880 to the present. Not only does this program deal with the domestic aspects of our history, but special emphasis is concentrated on the 20th century international events as they relate to the U.S. and our world community.

Course Name: Advanced U.S. History 10

Grade: 10 **Course Length: 1 year** **Credits: 1.0** **Prerequisite(s):** US History 9

Description: Advanced U.S. History II is for motivated students who wish to develop a deeper understanding of U.S. and world history. It focuses primarily on U.S. and world historic events from the rise of American imperialism in the late 19th century through the 1960's. The class strives to have students master historic reasoning, analysis of historic events and individuals who contributed to U.S and world history, and chronological thinking. Emphasis is placed on student engagement, collaborative project-based learning, and critical thinking.

Course Name: Modern History 11

Grade: 11 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: Modern History 1980-today is a survey of the social, political, economic, cultural, and intellectual history of the United States and the World from 1980 to present day. The course will compare and contrast lifestyles of the 80's, 90's, and today. Other themes that will be addressed include: the evolution of terrorism, major US and World leaders, tragedies such as the Challenger explosion and Hurricane Katrina, as well as advancements in technology and a preview of what the future may hold.

Course Name: Holocaust Studies

Grade: 11 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: This semester-long college-in-the-class course is designed to provide students with an intensive study of the Holocaust. The course is intended for students interested in a detailed history of the causes of the Holocaust and the horrors occurred during it. The course provides an overview of pre-war Jewish life and culture, a history of antisemitism, and the persecution of Jews in Nazi Germany. The second quarter focuses on the ghettoization of Jews and then how the "Final Solution to the Jewish question" was carried out beginning in 1939. Students are expected to read one non-fiction book about a Holocaust survivor and report to class. ***This course is available for dual enrollment credits.**

Course Name: Psychology

Grade(s): 11 **Course Length:** Semester **Credits:** 0.5 **Prerequisite:** None

Description: The course deals with the science of behavior. The student is introduced to the environmental reasons for personal activity by examining the founding theories and methods used by psychologists to categorize and explain behavior. Subject matter will include the processes of sensation and perception, learning and conditioning, personality and methodology.

Course Name: Sociology

Grade(s): 11 **Course Length:** Semester **Credits:** 0.5 **Prerequisite:** None

Description: The course acquaints the student with the basics of human relations. This is accomplished through an examination of what is culture, how the individual absorbs it and relates to it, the purpose of social institutions, and the real problems that arise from the socialization process. Students are encouraged to observe societal activity and make objective evaluations relating to specific aspects of American culture

Course Name: Economics /Government 12

Grade: 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** None

Description: This course is divided into 4 major parts. Students will explore a traditional macro/micro analysis approach as an introduction to the course. The second major section/unit will be an examination of American Business including sole proprietorships, partnerships, and corporations. This unit will also include a student investment game. The next unit will be a traditional study of the interactions of supply and demand. The final unit is a study of the Federal Income Tax System including all major tax returns, 1040EZ, and 1040A. Students will explore the origins of government, and our American government in particular. Emphasis will be placed on our Constitution as the reference point of our federal government. Major constitutional questions will be examined including precedent setting cases of the past and current constitutional controversies.

Course Name: AP Government & Politics/Economics | *(A.P.; holds a weight of 5.1 towards final GPA)*

Grade: 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** At least a 'B' average in 11th grade history.

Description: This course will give students the analytical perspective on government politics in the United States. This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. Students should become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. ***This course is available for dual enrollment credits.**

DEPARTMENT: INDUSTRIAL TECH / ENGINEERING**Course Name: Drawing and Design**

Grade(s): 9 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite:** None

Description: The goal of this course is to give the students a basic background in the world of drawing and design. The students will

draw basic shapes and objects using only pencil and paper. No drawing tools will be used. They will learn how to draw both orthographic and isometric drawings. They will be challenged with various problem solving activities. They will be required to do both individual and group activities in the classroom. They will brainstorm, design, sketch, build, and test models in the class. All projects will be submitted for grading by peers and the teacher.

Course Name: Robotics 1,2,3,4

Grade(s): 9 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** None

Description: Robotic Engineering is a high school level course that is appropriate for 10th – 12th grade students who are interested in the design, engineering and programming of robots or another technical career. The Robotics Engineering course is designed to explore the past, current and future use of automation technology in industry and everyday use. Robotic Engineering focuses heavily on prior knowledge from STEM related courses. The students will receive a comprehensive overview of robotic systems and the subsystems that comprise them. With curriculum provided by VEX and the REC Foundation, the students will program several autonomous robots using Robot C. There will be class competitions and engineering challenges using VEX robotic system, Careers in robotics, programming, and engineering will be discussed.

Course Name: Home Maintenance & Improvement

Grade(s): 10 11 12 **Course Length:** 1 Semester **Credits:** .5 **Prerequisite(s):** None

Description: This course provides students with an opportunity to explore the many different areas in construction that relate to home maintenance and repair. Students will develop advanced problem-solving skills as they relate to home repair and essential life skills that will help make them self-reliant in maintaining or updating a residential structure. Students will also learn and practice many different home repair procedures and techniques including: plumbing, electrical, drywall work, tiling, etc. This course will be presented from a theoretical as well as a hands-on approach. This course will cover topics relating to equipment, techniques and procedures as they pertain to home maintenance and repair. Students will have the opportunity to apply construction techniques in a hands-on manner and this course supports learning for students with a variety of learning styles.

Course Name: Wood Manufacturing Systems I

Grade(s): 9 10 11 12 **Course Length:** Semester **Credits:** 0.5 **Prerequisite(s):** None

Description: This is a beginners level course to introduce them to wood manufacturing. The student will be introduced to all of the machines. Safety will be covered on all of the machines in the shop. The students will start with plans and rough materials. They will use the tools to create a finished product. They will then be required to develop their own product and set up a mass production run which will include developing plans, jig and fixtures, flow charts, the actual manufacturing of parts, and electing a President and Vice President. This allows the students to see what actually goes on in the real world. (The students are required to purchase their products to complete the class.)

Course Name: Wood Manufacturing Systems II and III

Grade(s): 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** Wood I and II

Description: The goal of this course refines the woodworking knowledge the students were taught in Wood I. The students will review all of the tools used, and the safety practices for each. They will review the different practices and procedures for designing and building a project. A student chosen project must also be completed to fulfill the class requirements. This project needs to be completely designed and manufactured by the student in class. By the time this course is complete, the student should be able to follow strict tolerances and build outstanding projects. (The students are required to purchase their projects from the school.)

DEPARTMENT: WORLD LANGUAGE (FOREIGN LANGUAGES)

Course Name: German I

Grade(s): 09 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** C or better in the previous year's English class.

Description: Students will learn basic conversational German and will also be able to read and translate into English a simple passage from German. A comparison of German and American customs is taught in order to create an appreciation of German culture. Students learn German language and culture by a variety of techniques.

Course Name: German II

Grade(s): 10 11 12 **Course Length:** 1 year **Credits:** 1.0 **Prerequisite(s):** C or better in German I

Description: Students increase their ability to converse and react in German. Conversations are longer and cover a variety of situations

that might be encountered in German society. German culture continues to be studied.

Course Name: **German III** | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade(s): 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): C or better in German II

Description: Students increase their ability to converse and react in German. German culture continues to be studied.

***This course is available for dual enrollment credits.**

Course Name: **German IV** | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade(s): 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): C or better in German III

Description: Students will be expected to read, write, speak, and listen to sentences in German. Students will in German discuss: grocery shopping, outdoor activities, holidays, past activities, daily newspapers and magazine articles, computer related topics, health related problems, traffic situations or accidents, as well as interesting cultural excerpts. ***This course is available for dual enrollment credits.**

Course Name: **Spanish I**

Grade(s): 09 10 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): C in previous year's English class

Description: Spanish I is an introduction to the language, culture, and history of Spanish speakers in Spain, Latin America, and the United States. Students will learn basic vocabulary and simple grammar in a variety of situations.

Listening, speaking, reading, and writing skills will be developed by various techniques, which may include TPR activities, role plays in real-life situations, oral and written exercises. Students will be exposed to the customs, music, and food of Hispanic people.

Course Name: **Spanish II**

Grade(s): 10 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): C or better in Spanish I

Description: Students will acquire a higher level of speaking, writing, and reading skills in Spanish. Conversational skills are more developed, and cover a variety of situations that might be encountered in a Spanish-speaking country. Hispanic culture continues to be studied.

Course Name: **Spanish III** | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade(s): 11 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): C or better in Spanish II

Description: The course is a continuation of the listening, speaking, reading, and writing skills of the previous years' instruction. Students will learn more specialized vocabulary and advanced grammatical structures, and demonstrate oral proficiency in more complicated situations at a higher level of linguistic competence. The study of history and culture will allow students to expand reading and writing skills. Several projects will be required. ***This course is available for dual enrollment credits.**

Course Name: **Spanish IV** | *(Honor Course; holds a weight of 5.0 towards final GPA)*

Grade(s): 12 Course Length: 1 year Credits: 1.0 Prerequisite(s): C or better in Spanish III

Description: Authentic texts and materials will provide context for oral proficiency practice and interaction with other students. Emphasis given to acquiring vocabulary and more complex grammatical structures will enable students to expand their reading and writing skills. Several projects will be required. ***This course is available for dual enrollment credits.**

Vocational-Technical Training (at Clarion County Career Center)

The Clarion County Career Center (CCCC) offers programs in nine (9) different career areas to students from seven (7) area sending schools. Students who choose to enroll in a CCCC program will attend during an AM or PM session (lasting approximately 2.5 hours). The remainder of their day involves completing their core academic courses of study at their respective sending school. Programs are designed to be three years in length, beginning in the 10th grade. However, 11th and 12th grade students may also begin a program, and would be encouraged to do so, if this would assist them in reaching their career or educational goals. There are many opportunities for students enrolled in a CCCC program. All programs prepare students for immediate employment, or post-secondary education program options. Senior students who demonstrate a high level of competency in their program, can participate in a cooperative education experience with an area employer. Furthermore, articulation agreements with some post-secondary institutions can provide students with advanced credits or placement. Lastly, CCCC students have the opportunity to earn industry recognized certificates, or licenses, through examinations or certification testing programs.

Clarion County Career Center Programs

Course Name: **Allied Health Science**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: Successful graduates of Allied Health can acquire entry-level jobs as patient care aids, home health aids, and therapy aides. Students may return after graduation for a certified nursing assistant course free of charge. As students meet the required academic courses necessary for the pursuit of a health career, they are also learning a variety of hands-on healthcare skills.

Course Name: **Automotive Technology**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: Students enrolled in this program will learn the basic fundamentals of today's high tech automobile. The students can gain high level knowledge needed to become an ASE certified technician and/or PA State licensed inspection mechanic. Students that successfully complete the program will have the skills to become an entry-level auto technician.

Course Name: **Computer Networking/Information Tech.**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: Students who enroll in Computer Networking will have the opportunity to obtain basic computer and networking fundamental skills, all the way to industry skill certifications. Great hands-on experience trouble-shooting plus repairing computer and networking related issues, the students receive the industry "how to" and knowledge to handle common and uncommon situations.

Course Name: **Construction Technology**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: Students receive training in all aspects of the construction trades. Students will learn skills and theory in the carpentry, electrical, plumbing, masonry fields and the International Residential Code (IRC). As a student in Construction, you can expect to participate in the construction of many "hands-on" projects including a complete modular home.

Course Name: **Cosmetology Styling Academy**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: The cosmetology course provides the skills required to become a state licensed Cosmetologist. Classroom instruction and clinical experience ensure the training needed to perform tasks used in today's ever-changing cosmetology industry.

Course Name: **Culinary Arts & Hospitality**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: Students in this program can prepare themselves with the training necessary for entry-level jobs in the food service industry. Some of the skills acquired include commercial food preparation and service, sanitation, inventory control, knife skills, weighing, measuring, cake decorating, commercial kitchen equipment operation and baking skills.

Course Name: **Diesel Technology**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: Diesel is an eight unit instructional program designed to prepare students for entry-level job placement or advanced course offerings at several technical or community colleges. Some of the learned skills are: diesel engine rebuilding, electronic engine controls, drive components, air conditioning, brakes and steering.

Course Name: **Police Science**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: This program prepares students for a variety of exciting careers in public safety. Through the three year program, students are taught common police investigation techniques, private security concepts, emergency dispatch procedures, advanced emergency medical skills, crime scene investigations and the criminal justice system.

Course Name: **Welding & Fabrication**

Grade(s): 10 11 12 Course Length: 1 year Credits: 3.5 Prerequisite(s): None

Description: With state-of-the art facilities, the welding and fabrication skill development area provides the students with the opportunity to learn welding and fabrication techniques. The demand for welders in this region is very high! Some skills learned are: oxy-acetylene cutting, brazing, stick welding, MIG welding, TIG welding and plasma cutting.