

NORTH SCHUYLKILL NCAA APPROVED COURSES

ENGLISH

110 ENGLISH 9

2 DAY CYCLE

WEIGHT 1.00

1 CREDIT

Students will complete units in the areas of grammar/usage, writing skills, vocabulary development, research, short story/novel, and drama/poetry. **Prerequisite:** Successful completion of English 8. Students will be placed based on the previous year's cumulative average for English and Reading, plus teacher recommendation.

115 ACADEMIC ENGLISH 9

2 DAY CYCLE

WEIGHT 1.04

1 CREDIT

This course is designed for the college bound student. Students will complete units in the areas of grammar/usage, composition, short story/novel, drama/poetry, vocabulary development, parenthetical citations and research outlining.

Prerequisite: Successful completion of English 8. Students will be placed in their course based on the previous year's cumulative average for English and Reading, plus teacher recommendation.

120 HONORS ENGLISH 9

2 DAY CYCLE

WEIGHT 1.08

1 CREDIT

Students will complete units in the areas of grammar/usage, composition, short story/novel, drama/poetry, vocabulary development. Course requirements will be more challenging than that of Academic English 9 **Prerequisite:** Successful completion of English 8 and Reading 8 with a cumulative average of 93% or higher, teacher recommendation, and successful completion of the summer reading test with a 70% or higher.

125 ENGLISH 10

2 DAY CYCLE

WEIGHT 1.00

1 CREDIT

Students will complete units in the areas of grammar/usage, writing skills, speech, short story/novel, composition, drama/poetry, research, writing and vocabulary development. Reading selections are from World Literature.

Prerequisite: Successful completion of a 9th grade English.

130 ACADEMIC ENGLISH 10

2 DAY CYCLE

WEIGHT 1.04

1 CREDIT

Students will complete units in the areas of grammar/usage, story/novel, drama/poetry, research, writing and vocabulary development. Reading selections are from World Literature. **Prerequisite:** Successful completion of a 9th grade English and teacher recommendation.

135 HONORS ENGLISH 10

2 DAY CYCLE

WEIGHT 1.08

1 CREDIT

Students will complete units in the areas of grammar/usage, short story/novel, drama/poetry, research, writing and vocabulary development. Reading selections are from World Literature. Course requirements will be more challenging than that of Academic English 10. **Prerequisite:** Successful completion of a 9th grade English course with a cumulative average of 93% or higher, or successful completion of Honors English 9 with a 90% or higher. Additionally, students enrolling in Honors English 10 must successfully complete the summer reading test with a 70% or higher to maintain enrollment in the Honors English Program.

140 ENGLISH 11

2 DAY CYCLE

WEIGHT 1.00

1 CREDIT

Students will complete units in the areas of grammar/usage, writing, short story/novel, speech, vocabulary development, research and drama/poetry. Reading selections are from American Literature. **Prerequisite:** Successful completion of a non-elective 10th grade English course.

145 ACADEMIC ENGLISH 11
2 DAY CYCLE

WEIGHT 1.04
1 CREDIT

Students will complete units in the areas of grammar/usage, short story/novel, drama/poetry, research, writing and vocabulary development. Reading selections are from American Literature. **Prerequisite:** Successful completion of a 10th grade non-elective English course and teacher recommendation.

150 HONORS ENGLISH 11
2 DAY CYCLE

WEIGHT 1.08
1 CREDIT

Students will complete units in the areas of grammar/usage, short story/novel, drama/poetry, research, writing and vocabulary development. Reading selections are from American Literature. Course requirements will be more challenging than that of Academic English 11. **Prerequisites:** Successful completion of a 10th grade non-elective English course with a cumulative average of 93% or higher, or successful completion of Honors English 10 with a 90% or higher. Additionally, students enrolling in Honors English 11 must successfully complete the summer reading test with a 70% or higher to maintain enrollment in the Honors English Program.

155 ENGLISH 12
2 DAY CYCLE

WEIGHT 1.00
1 CREDIT

Students will complete units in the areas of grammar/usage, writing, short story/novel, vocabulary development, research, and drama/poetry. Reading selections are from British Literature. **Prerequisites:** Successful completion of a non-elective 11th grade English course.

160 ACADEMIC ENGLISH 12
2 DAY CYCLE

WEIGHT 1.04
1 CREDIT

Students will complete units in the areas of grammar/usage, short story/novel, drama/poetry, research writing and vocabulary development. Reading selections are from British Literature. **Prerequisite:** Successful completion of a non-elective 11th grade English course and teacher recommendation.

165 HONORS ENGLISH 12
2 DAY CYCLE

WEIGHT 1.08
1 CREDIT

Students will complete units in the areas of grammar/usage, composition, short story/novel, drama/poetry, research writing and vocabulary development. Reading selections are from British Literature. Course requirements will be more challenging than that of Academic English 12. **Prerequisites:** Successful completion of a non-elective 11th grade English course with a cumulative average of 93% or higher, or successful completion of Honors English 11 with a 90% or higher. Additionally, students enrolling in Honors English 12 must successfully complete the summer reading test with a 70% or higher to maintain enrollment in the Honors English Program.

170 ADVANCED PLACEMENT ENGLISH
2 DAY CYCLE

WEIGHT 1.12
1 CREDIT

Students who enroll in an AP Course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course. This course is designed to guide students in an intensive study of World Literature of various genres (short story, novel, poetry, drama, etc.) and to guide students in the composition techniques (exposition, analysis, persuasion, and rhetoric) required to analyze and critique these literary works. This course may be selected in place of Academic or Honors English 12. **Students taking this course are required to take the College Board Advanced Placement Exam in English Literature and Composition given at the end of the year.** **Prerequisite:** Successful completion of non-elective 11th grade English courses with a cumulative average of 93% or higher, or successful completion of Honors English 11 with a 90% or higher. Additionally, students enrolling in Advanced Placement English must successfully complete the summer reading test with a 70% or higher to maintain enrollment in this course.

185 PUBLIC SPEAKING AND RESEARCH
2 DAY CYCLE

WEIGHT 1.08
.5 CREDIT

This course is designed to aid 11th and 12th grade students gain poise and confidence while speaking in public. Students will complete three major units: 1. Public speaking research and writing techniques; 2. Effective communication skills; 3. Presentation of four to five main speeches. Constructive criticism is necessary for evaluation and improvement. **Prerequisite:** Successful completion of non-elective 9th and 10th grade English courses.

190 MYTHOLOGY
2 DAY CYCLE

WEIGHT 1.04
.5 CREDIT

This course includes the study of myths and heroic legends from ancient Greece and Rome and their relevance to the present-day world. There will be a wide variety of literary sources utilized. **Prerequisite:** Successful completion of non-elective 9th and 10th grade English courses.

MATHEMATICS

All Math courses require teacher recommendations.

220 ALGEBRA I B
2 DAY CYCLE

WEIGHT 1.00
2 CREDITS

This course will include a study of the symbolism and structure of algebra that occurs in many other areas of learning with which a student not planning to enter a math-, or science - related field should be familiar. Topics covered will include variables, constants, algebraic expressions, solving equations and inequalities, factoring, quadratic equations, rational expressions, linear equations and inequalities in two variables, and systems of equations. **Prerequisites** – Successful completion of Algebra IA.

225 ACADEMIC ALGEBRA I B
2 DAY CYCLE

WEIGHT 1.04
2 CREDITS

This course is designed for the college-bound student. Special attention will be given to the Keystone Exam Anchors and eligible Content in order to prepare students for the Keystone Algebra I Exam that will be taken at the end of the course in the spring. Topics covered will include Simplifying Numerical and Algebraic Expressions, Linear Equations, Functions, and Inequalities, Systems of Linear Equations, Functions, and Inequalities, Exponents, Radicals, Multiplying and Factoring Quadratic Expressions, Simplifying Rational Expressions, Statistics and Probability. **Prerequisite** – Successful completion of Academic Algebra IA.

230 GEOMETRY
2 DAY CYCLE

WEIGHT 1.00
1 CREDIT

This course is designed to give students a basic background in the principles and theory of geometry. The topics covered will include basic definitions, postulates, and theorems concerning lines, planes, angles, segments, polygons, and circles. The perimeter and area of plane figures as well as surface area and volume of 3-dimensional figures will be investigated. **Prerequisites** – Successful completion of Algebra IB.

235 ALGEBRA II
2 DAY CYCLE

WEIGHT 1.00
1 CREDIT

This course will include both a review of the material presented in Algebra I and extended use and explanation of the concepts presented in that course. Using equations in problem solving, graphing equations of lines, and work with exponents and radical expressions will be some of the additional topics covered. **Prerequisites** – Successful completion of Geometry.

240 ACADEMIC ALGEBRA II
2 DAY CYCLE

WEIGHT 1.04
1 CREDIT

This course is designed for the college-bound student. It will include a review of algebra topics. Additional topics covered will include solving equations and inequalities; functions and their graphs; systems of equations and inequalities; operations with polynomials; factoring; rational expressions and equations; irrational and complex numbers; solving quadratic equations; graphing quadratic functions in a plane. **Prerequisite** – Successful completion of Academic Geometry.

241 HONORS ALGEBRA II
2 DAYS CYCLE

WEIGHT 1.08
1 CREDIT

The early portion of this course covers a review of basic algebra topics that were covered in Honors Algebra I. Additional topics include in-depth work with equations and inequalities; functions and their graphs; polynomials' rational expressions and equations; irrational and complex numbers and quadratic functions. Students will be required to complete a summer review packet prior to the start of the school year in preparation for this course. There will be a test on Day 2 of the school year on the material contained in the summer review packet. This test will count toward the first marking period grade.

Prerequisite – All students MUST have scored proficient on the Keystone Algebra I exam to be admitted into Honors Algebra II. Successful completion of Honors Geometry with a cumulative average of a 90% or higher.

**245 ACADEMIC GEOMETRY
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course is designed for the college-bound student. Topics covered include the same as those in Basic Geometry but in much greater depth. Emphasis is placed on proofs, as well as using inductive and/or deductive reasoning. Coordinate Geometry and the basic trigonometric functions are introduced. **Prerequisite** – Successful completion of Academic Algebra IB.

**246 HONORS GEOMETRY
2 DAY CYCLE**

**WEIGHT 1.08
1 CREDIT**

Topics include using definitions, postulates, and theorems in a logical reasoning process to reach conclusions pertaining to lines, planes, angles, polygons, and circles. Emphasis is placed on formal proofs. Students who were in Honors Algebra for 8th grade who did not score proficient on the Keystone Algebra I exam will be remediated and retested in the winter of Honors Geometry. If a student does not score proficient the second time, the student will be moved to Academic Algebra II the following year. **Prerequisite** - This course is designed specifically for students entering 9th grade who have successfully completed Honors Algebra I for 8th grade with a cumulative average of a 85% or higher.

**250 PRE-CALCULUS
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course is designed for the college bound student as an introduction to Trigonometry and Analytic Geometry. Topics covered will include conversion between degrees and radians, solving right triangles, trigonometric functions, proving trig identities, trigonometric equations, and conic sections. Students will also develop methods for graphing functions that include: horizontal and vertical shifts, reflections, stretching, lines of symmetry, inverses and asymptotes.

Prerequisites: Successful completion of Academic Algebra II or Honors Algebra II.

**255 HONORS PRE-CALCULUS
2 DAY CYCLE**

**WEIGHT 1.08
1 CREDIT**

This course is designed for the college bound student. It blends the concepts and skills that must be mastered before taking a college-level calculus or physics course. This course includes the study of trigonometry in triangles, trigonometric functions, trigonometric identities and equations, relations and functions, analytic geometry, exponential and logarithmic functions, limits and continuity and touches on topics such as sequences, series and polar coordinates as well as other calculus topics. This course is required to take Advanced Placement Calculus. A graphing calculator is recommended for this course. Students will be required to complete a summer review packet prior to the start of the school year in preparation for this course. There will be a test during the first week of the school year on the material contained in the summer review packet. This test will count toward the first marking period grade. **Prerequisites** – Successful completion of Honors Algebra II with a cumulative average of a 90% or higher or Academic Algebra II with a cumulative average of a 93% or higher.

**260 PROBABILITY AND STATISTICS
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course is designed for the college bound student and will cover statistical graphs and computational analysis of data. Combinations, permutations, conditional probability, distributions with discrete and continuous random variables will be explored. Estimation with parameters, hypothesis testing and linear correlation and regression will also be discussed. Students may not take both Probability and Statistics and Advanced Placement Statistics. **Prerequisites** – Successful completion of Academic Algebra II or Honors Algebra II.

**263 ADVANCED PLACEMENT STATISTICS
2 DAY CYCLE**

**WEIGHT 1.12
1 CREDIT**

Students who enroll in an AP Course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course.

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: 1. Exploring Data: Describing patterns and departures from patterns; 2. Sampling and Experimentation: Planning and conducting a study; 3. Anticipating Patterns: Exploring random phenomena using probability and simulation; 4. Statistical Inference: Estimating population parameters and testing hypotheses. Students who successfully complete the course and exam may receive college credit, advanced placement or both for a one-semester introductory college statistics course.

Students will be required to complete a summer review packet prior to the start of the school year in preparation for this course. There will be a test during the first week of the school year on the material contained in the summer review packet. This test will count toward the first marking period grade.

Prerequisite: Successful completion of Honors Algebra II with a cumulative average of a 90% or higher or Academic Algebra II with a cumulative average of a 93% or higher. Students who have taken Probability and Statistics cannot enroll in this course.

**265 CALCULUS
2 DAY CYCLE**

**WEIGHT 1.08
1 CREDIT**

This course is designed to give students an adequate background in higher mathematics upon entering college. Topics covered will include a study of linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions and differentiation and integration of these functions with applications. Students will be required to complete a summer review packet prior to the start of the school year in preparation for this course. There will be a test during the first week of the school year on the material contained in the summer review packet. This test will count toward the first marking period grade. **Prerequisites** – Successful completion of Honors PreCalculus with a cumulative average of a 90% or higher or PreCalculus with a cumulative average of a 93% or higher.

**270 ADVANCED PLACEMENT CALCULUS AB
2 DAY CYCLE**

**WEIGHT 1.12
1 CREDITS**

Students who enroll in an AP Course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course.

AP Calculus will cover the same topics as Calculus but in a more in-depth, accelerated manner, as well as several additional topics. More emphasis and interpretation will be placed on the various concepts in abstract form. Applications of the concepts studied will be routinely investigated with most of the year must being devoted to topics in differential and integral calculus as per the College Board Advanced placement goals. Students will be required to complete a summer review packet prior to the start of the school year in preparation for this course. There will be a test during the first week of the school year on the material contained in the summer review packet. This test will count toward the first marking period grade. A graphing calculator is required. **Prerequisite** – Successful completion of Honors Pre-Calculus with a cumulative average of a 93% or higher. Students who have taken Calculus cannot enroll in this course.

SOCIAL STUDIES

**320 AMERICAN HISTORY II
2 DAY CYCLE**

**WEIGHT 1.00
1 CREDIT**

This course will cover the period of American history starting at the beginning of the 20th century to the present. The main objective of the course will be to give students a clear understanding of how the United States developed into a world power. The course will be divided between domestic and world affairs - including the major wars of this time period, and each topic presented will be examined in terms of its relationship to current local, state, federal, and/or world affairs. **This is a 9th grade core requirement that all 9th grade students must schedule.**

**321 ACADEMIC AMERICAN HISTORY II
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course will cover the period of American History starting at the beginning of the 20th century to the present. The main objective of the course will be to give students a clear understanding of how the United States developed into a world power. The course will be divided between domestic and world affairs – including the major wars of this time period, and each topic presented will be examined in terms of its relationship to current local, state, federal, and/or world affairs. Students will be required to work extensively with primary sources to conduct historical research. **American History II is a 9th grade core requirement that all 9th grade students must schedule.** Additional independent work and research assignments will be a course requirement. **Prerequisite** - successful completion of American History I with a 90% or better final average.

**323 ACADEMIC CIVICS
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

The Civics course presents six elements. The first component defines government and why it exists while the second portion explores what events led to American Independence. The third element discusses how history influenced and continues to influence the Constitution. Component four focuses on the federal system. Elements five and six delve into the three branches of government and the role of foreign policy. Additional independent work and research assignments will be a course requirement. Civics is a 10th grade core requirement that all 10th grade students must schedule.

Prerequisite – successful completion of American History II with a 90% or better final average.

**325 WORLD HISTORY
2 DAY CYCLE**

**WEIGHT 1.00
1 CREDIT**

This course includes basic units of early and later Stone Age peoples and continues with the emergence of the following early civilizations: Egyptian, Sumerian, Babylonian, Assyrian, Hebrew, Phoenician, Persian, Chaldean, and Lydian. The history, geography, and contributions of these civilizations will be discussed. Classical Greece and Rome will be examined closely, as will Medieval Europe, feudal society, the Renaissance, and the Reformation. The building of national monarchies in Europe and the Byzantine and Islamic civilizations will also be covered. **This is an 11th grade core requirement that all 11th grade students must schedule.**

**326 ACADEMIC WORLD HISTORY
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course includes basic units of early and later Stone Age peoples and continues with the emergence of the following early civilizations: Egyptian, Sumerian, Babylonian, Assyrian, Hebrew, Phoenician, Persian, Chaldean, and Lydian. The history, geography, and contributions of these civilizations will be discussed. Classical Greece and Rome will be examined closely, as will Medieval Europe, feudal society, the Renaissance, and the Reformation. The building of national monarchies in Europe and the Byzantine and Islamic civilizations will also be covered. Additional independent work and research assignments will be a course requirement. **World History is an 11th grade core requirement. All 11th grade students must schedule a World History course.** **Prerequisite** – successful completion of Civics with a 90% or better final average.

**328 INTRO TO LAW
2 DAY CYCLE**

**WEIGHT 1.00
1 CREDIT**

This course includes the history of law, the court system, ethics, criminal, tort, and contract law. Additional topics may include cyber law and environmental law. Group work is frequently employed and an individual independent research/presentation project will be required. **Prerequisite** - Student must be in grades 11 - 12.

**330 PA CULTURES AND HISTORY / RESEARCH
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course covers the history, geography, and culture of the state of Pennsylvania. The different ethnic groups and Indian tribes of the state, and the Colonial and Revolutionary periods will also be topics that are examined. Governmental structures of the state and its counties, its educational history and structure, and the history of transportation and industry will also be stressed, and a brief study of Schuylkill county and the Anthracite coal industry will be included. Research of people, places, and events in our state and county will be required, as will a minimum of one major research project.

Prerequisite - Student must be in grade 11 or 12.

**335 SOCIAL ISSUES OF THE 21ST CENTURY
2 DAY CYCLE**

**WEIGHT 1.04
1 CREDIT**

This course will include coverage of several distinct disciplines of Social Studies: Governmental studies / Political Science; Sociology; and Economics. Topics that will be covered include: the characteristics of federal, state, and local government in America, including a discussion of the three specific branches of our government - executive, legislative, and judicial - and how these institutions affect our daily lives; the family, gender roles, racial and ethnic relations, and crime and deviance as each exists in our country today; and the social security system, the current tax system, the federal deficit and appropriate consumer education in relation to these topics. **Prerequisite** – Student must be in grade 11 or 12.

340 GEOGRAPHY

2 DAY CYCLE

WEIGHT 1.08

1 CREDIT

This course will emphasize Human Geography, but will also include some place geography. Students will explore topics such as the five themes of geography, development, demography, political and economic systems, intergovernmental organizations, human rights, globalization, cultural relativism, and international relations. Projects, research papers, reflections, and discussion that emphasize students' ability to factually defend their viewpoints will be required.

Prerequisite – Students must be in 11th or 12 grade.

345 SOCIOLOGY

2 DAY CYCLE

WEIGHT 1.00

1 CREDIT

This is a general survey course that pays special attention to the influence of group living and human behavior in order to enhance the study of the fundamental principles of human social history, and offer some insights into the diverse social problems of today. This course will help the student to develop a tolerance and understanding of differences, think objectively about society, and foster a belief that solutions can be found to any problem. **Prerequisite** - Student must be in grade 11 or 12.

350 SOCIOLOGY PRACTICUM

2 DAY CYCLE

WEIGHT 1.08

1 CREDIT

This course is offered as a more in-depth alternate to Sociology. Students taking this course must complete three objectives: 1. An introduction to the science of sociology, through familiarization with important sociological concepts, research findings, and basic principles; 2. The development of a more accurate picture of the nature and content areas of Sociology; and 3. The completion of an empirical, logical, and objective study of a sociological problem, the method and results of which will be reduced to a research paper/project. **Prerequisite** - Successful completion of previous year's Social Studies course with an average of 93% or higher. Student must be in grade 11th or 12th grade.

355 U.S. GOVERNMENT

2 DAY CYCLE

WEIGHT 1.04

.5 CREDIT

This course introduces students to the science of America's government by familiarizing them with important democratic concepts, basic principles, and political findings. Various issues facing our democracy will be examined, as will the intriguing game and processes of American politics, and the concepts of Economics and how our government utilizes economic policy in our evolving bureaucratic system of government. The course will culminate with a student research project dealing with the issues facing our national government. **Prerequisite** - Student must be in grade 11 or 12.

356 ECONOMICS

2 DAY CYCLE

WEIGHT 1.04

.5 CREDIT

This course introduces the students to the basic concepts of Economics. The students will learn about flow of money and resources to various places in the market. The students will learn how economics affects their everyday lives. Finally, the course will end with a research project. **Prerequisite** – students must be in grades 11 or 12.

357 MODERN WORLD HISTORY I

2 DAY CYCLE

WEIGHT 1.00

.5 CREDIT

This course will cover the period of world history starting with the end of the Renaissance through the Industrial Revolution. The history, geography, and contributions of the growing "nation – states" will be discussed. The rise of capitalism, socialism, monarchies, and modern republics will be examined at length. Also discussed will be the contributions of various artists, writers and thinkers of the time which included those who contributed the ideas behind the American Republic. **Prerequisite** – Student must be in grade 11 or 12.

358 MODERN WORLD HISTORY II
2 DAY CYCLE

WEIGHT 1.00
.5 CREDIT

This course picks up with the formations of Italy and Germany in Europe and the expansion of European power to less advanced parts of the world. The course will then make an overview of the two world wars, the cold war, and ending in modern times. The rise of political-economic systems of communism, fascism, modern socialism, and their impact on world politics will be examined. The writers, artists and revolutionaries that also influenced the world will also be included in this course. **Prerequisite** – Student must be in grade 11 or 12.

359 UNITED STATES MILITARY HISTORY I
2 DAY CYCLE

WEIGHT 1.04
.5 CREDIT

Examine the role of the military and conflict on the United States. Students will research and analyze the strategic, technological, cultural and political influence of warfare on United States history and the development of our country from the Revolutionary War to the War on Terror. Additionally, this course will debate the many reasons why Military History is the most common theme of modern popular history. **Prerequisite** – Successful completion of American History II with a B average or higher. Students must be in 11th and 12th grade.

360 ADVANCED PLACEMENT U.S. HISTORY
2 DAY CYCLE

WEIGHT 1.12
1 CREDIT

Students who enroll in an AP Course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course.

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials - their relevance to a given interpretive problem, reliability, and importance - and to weigh the evidence and interpretations presented in historical scholarship. An AP U.S. History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. **Prerequisite** - Successful completion of American History I & II, and World History with an 93% or better average in each course.

361 UNITED STATES MILITARY HISTORY II
2 DAY CYCLE

WEIGHT 1.04
.5 CREDIT

Examine the role of the military and conflict on the United States. Students will research and analyze the strategic, technological, cultural, and political influence on warfare on United States history and the development of our country from the start of the 20th Century to modern times. Additionally, this course will debate the many reasons why Military History is the most common theme of modern popular history. **Prerequisite** – Successful completion of American History II. Students must be in 11th or 12th grade.

SCIENCE

410 CHEMISTRY OF LIFE
2 DAY CYCLE

WEIGHT 1.00
1 CREDIT

This 9th grade required course will emphasize the connection between chemistry and living things. Topics covered will include properties of matter, atomic structure, elements and the Periodic Table, bond types, chemical formulas and chemical reactions, properties of water, acids and bases, four types of organic molecules found in living things, proteins, lipids, carbohydrates and nucleic acids. **Prerequisite** – Successful completion of 8th grade Science.

411 ACADEMIC CHEMISTRY OF LIFE
2 DAY CYCLE

WEIGHT 1.04
1 CREDIT

Students in this course will learn all of the same concepts as General Chemistry of Life. Topics covered will include properties of matter, atomic structure, elements and the Periodic Table, bond types, chemical formulas and chemical reactions, properties of water, acid and bases, four types of organic molecules found in living things, proteins, lipids, carbohydrates and nucleic acids. The level of information will be more in depth and assignments and labs may require

more time and effort to complete. More emphasis will be placed on self-sufficiency. **Prerequisite** – Successful completion of 9th grade Science with 85% or higher.

415 BIOLOGY
2 DAY CYCLE

WEIGHT 1.00
1 CREDIT

This course will provide non - college bound student with an opportunity to explore fundamental principles of living things while developing scientific problem solving skills and laboratory techniques. Topics covered will include science as a process, structure and function of cells, energy transformations, genetics and heredity, evolution, classification, diversity of life and ecology. Keystone Biology exam will be taken as a requirement of this course. **Prerequisite** - Successful completion of Chemistry of Life or 9th grade Science.

420 ACADEMIC BIOLOGY
2 DAY CYCLE

WEIGHT 1.04
1 CREDIT

This course covers topically what is found in Biology 415 but in a more academically rigorous manner. Emphasized topics include: the chemical basis of life, cellular energetics, homeostasis and transport, cell growth and reproduction, protein synthesis, organic variation, theories of evolution and ecology. Extensive laboratory work and research projects are required. The Keystone Biology exam will be taken upon completion of this course. **Prerequisite** - Successful completion of Academic 9th grade Science with an average of an 85% or higher.

425 HUMAN ANATOMY & PHYSIOLOGY
2 DAY CYCLE - Double Period, One Semester

WEIGHT 1.08
1 CREDIT

This course is designed as an advanced biology course intended for the serious student interested in pursuing a career in the medical or other biologically-related field. The overall theme of the course is "Homeostasis" and how the 11 human organ systems work together to achieve this. Topic covered will Include: history of Anatomy and Physiology, histology, skeletal, cardiovascular, respiratory and digestive System.

Research, presentations, and lab work, including dissections, will accompany the topics described above. **Prerequisite** - Successful completion of 10th grade Academic Biology with a grade of "B" or better.

426 HUMAN ANATOMY & PHYSIOLOGY II
2 DAY CYCLE – Double Period, One Semester

WEIGHT 1.08
1 CREDIT

This course is designed as continuation of Human Anatomy and Physiology I. Systems that will be covered in this course include muscular, excretory, endocrine, lymphatic and nervous, including special senses. Research, presentations, and lab work – including dissections – will accompany the topics described above. **Prerequisite** – successful completion of Human Anatomy and Physiology I with a grade of "B" or better.

430 ENVIRONMENTAL SCIENCE
2 DAY CYCLE

WEIGHT 1.00
1 CREDIT

This course deals with basic concepts of ecology including energy, limiting factors, competition, and population dynamics. The complex nature of local and global problems mankind faces will be discussed through a decision-making model. This course will emphasize water quality issues with hands-on experience in chemical testing of samples from local streams as well as macroinvertebrate identification. Additional topics will include: renewable/non-renewable energy sources, agriculture and society, and endangered species. Students will be responsible for experimental design, information retrieval, record keeping, statistical analysis, and written and/or oral exploration of results. **Prerequisite** - successful completion of 10th grade General or Academic Biology.

432 ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE
2 DAY CYCLE

WEIGHT 1.12
1 CREDIT

Students who enroll in an AP course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course.

This course is interdisciplinary and is designed to provide highly motivated 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 risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. This will be accomplished by self-guided studies,

lectures, labs and working with local organizations. **Prerequisite** – 85% or higher in Academic Biology, 93% or higher in all other sciences.

445 ACADEMIC CHEMISTRY I

2 DAY CYCLE-DOUBLE PERIOD, ONE SEMESTER

WEIGHT 1.08

1 CREDIT

This course includes a review of basic mathematics and algebra, a study of atomic structure, classification of elements, writing chemical formulas, balancing chemical equations, empirical and molecular formula calculations, percentage composition, stoichiometric relationships, acids, bases, salts, and balancing equations by ionic and oxidation-reduction methods. Also included will be descriptive and quantitative studies of solution stoichiometry. The laboratory part of this course will introduce the student to various laboratory procedures, and the writing of a proper lab report or lab notebook.

Prerequisites - Successful completion of 10th grade Academic Biology and Algebra II or Algebra IB, and Honors Algebra IB.

447 CHEMISTRY I

2 DAY CYCLE

WEIGHT 1.00

1 CREDIT

This introductory course will cover much of the same material as Academic Chemistry, with less emphasis on mathematical application and greater emphasis on descriptive chemistry. Some basic math skills are still needed however. The following topics will be covered: atomic structure, quantum theory, classification of elements, periodic law, chemical formula writing, balancing chemical equations, and introductory stoichiometry. **Prerequisites** - Successful completion of Algebra IB and one science course beyond 9th grade Science. This course is not open to students that are in or have taken Academic Chemistry.

448 CHEMISTRY II

2 DAY CYCLE – DOUBLE PERIOD, ONE SEMESTER

WEIGHT 1.08

1 CREDIT

This course is designed for science oriented students. It is a continuation of Academic Chemistry I, however, is not as rigorous as AP Chemistry. This course will cover the following topics: quantum chemistry, properties of solids, liquids, gases and solutions, kinetics, equilibrium, and thermodynamics. Materials chemistry may also be covered and more advanced laboratory techniques, such as spectrophotometry, will be introduced to the student. Students who have AP Chemistry may not schedule this course. **Prerequisites** - Grade of “B” or better in Academic Chemistry and currently enrolled in or successful completion of Pre-Calculus or Honors PreCalculus.

464 BIOLOGY II

2 DAY CYCLE – 1 PERIOD/DAY FULL YEAR COURSE

WEIGHT 1.04

1 CREDIT

Biology II offers an alternative for highly motivated students who want to continue their study of biology without the requirement of taking the Advanced Placement exam. Through a series of lectures and labs we will explore the chemical basis of life, physiology of cells, energy transformations, meiosis and the cell cycle, Mendelian genetics, classification, theories and patterns of evolution, and global ecological issues. **Prerequisites** – Successful completion of Biology with a “B” or better required.

465 ADVANCED PLACEMENT BIOLOGY

2 DAY CYCLE – with an alternating additional lab

WEIGHT 1.12

1.5 CREDITS

Students who enroll in an AP Course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course.

This course is designed to provide highly motivated college bound students with an opportunity to participate in a college level course while still in high school. Through a series of laboratories and lectures, we will explore such topics as properties of water, organic compounds, enzymes, cellular energetics, protein synthesis, diversity of life, Mendelian Genetics, classification, theories, patterns of evolution and ecology. **Prerequisites** – 90% or higher in Academic Biology required.

470 METEOROLOGY

SEMESTER

WEIGHT 1.04

.5 CREDIT

Students will study meteorology topics such as composition and structure of the atmosphere, the sun’s role in heating the earth, weather maps and charts, fronts, storms, etc. In addition, selected climatology topics will be studied. **Prerequisite** - Successful completion of 9th grade Science and Biology.

475 OCEANOGRAPHY**SEMESTER**

Students will study oceanographic topics including characteristics of the ocean's floor, water composition, currents, shoreline effects, waves and diversity of ocean life. The course will be informative emphasizing activities and projects.

Prerequisite - Completion of 9th grade Science and Biology.

WEIGHT 1.04**.5 CREDIT****480 ADVANCED PLACEMENT CHEMISTRY****2 DAY CYCLE – with an alternating additional lab**

Students who enroll in an AP Course will be required to take the AP exam. Students who choose not to take the AP exam will not receive full weight for the course.

AP Chemistry is designed to provide exceptionally motivated students with an opportunity to participate in a college level course and, potentially earn college credit while still in high school. This semester-long course meets daily for two periods. Through a series of lectures and a multitude of laboratories, we will explore such topics as quantum chemistry, properties of solids, liquids, gases and solutions, kinetics, equilibrium, thermodynamics, electrochemistry, nuclear and organic chemistry. Additionally, advanced laboratory techniques and procedures, including spectroscopy and titration, will be introduced. This course is rigorous, fast-paced, mathematically scrupulous and lab-intensive. Students who have taken Chemistry II may not schedule this course. **Prerequisites** - Grade of B or better in Academic Chemistry and currently enrolled in or successful completion of Pre-Calculus or Honors Pre-Calculus.

WEIGHT 1.12**1.5 CREDIT****FOREIGN LANGUAGE****520 SPANISH I****2 DAY CYCLE**

Students will be provided with a general introduction to the Spanish language which includes: sound system, pronunciation, functional vocabulary related to everyday life, cultural information and basic grammatical structures. Emphasis will be on the acquisition of four skills: listening, speaking, reading and writing. Students will be able to carry on a simple conversation and obtain a basic understanding of Spanish culture, vocabulary, and grammatical concepts.

Prerequisite: Successful completion of Introduction to Foreign Languages.

WEIGHT 1.00**1 CREDIT****525 SPANISH II****2 DAY CYCLE**

Spanish II builds upon knowledge gained in Spanish I. This course will reinforce the skills learned in Spanish I: listening, speaking, reading and writing. Emphasis is on perfecting pronunciation, mastery of the basic grammatical structures, and increased communicative proficiency. Acquisition of functional vocabulary is expected. Students will be exposed to the preterite tense (past tense). Students will be expected to apply them in their writing and speaking. Students will be able to carry on a simple conversation using expanded vocabulary and continue to gain an understanding of Spanish culture, vocabulary and grammatical concepts. **Prerequisite:** Successful completion of Spanish I.

WEIGHT 1.04**1 CREDIT****530 SPANISH III****2 DAY CYCLE**

This course builds upon knowledge gained in Spanish I and II. The course is a continuation and recycling of knowledge acquired in Spanish I and Spanish II, as well as an introduction to new vocabulary, structures and expressions. Students will be expected to expand their vocabulary range to include more sophisticated terms, use advanced language expressions, verb tenses and grammatical concepts such as the imperfect tense and other advanced concepts. Students will view Spanish language films and read selected Spanish literature. **Prerequisite:** Successful completion of Spanish II.

WEIGHT 1.08**1 CREDIT****532 SPANISH IV****2 DAY CYCLE**

This course will continue to emphasize the development of proficiency in reading, listening, speaking, and writing skills. This course continues the study of grammar and vocabulary, providing ample opportunity for oral and listening practice, as well as continued investigation of the culture of the Spanish-speaking world. Students will focus on the present, preterite,

WEIGHT 1.08**1 CREDIT**

imperfect, present subjunctive and the future tenses in writing and speaking. Students will become better communicators by expanding their repertoire of vocabulary and expressions, and they will link their grammar to practical, everyday situations. **Prerequisite:** Successful completion of Spanish III with a 77% average or better.

533 AP SPANISH LANGUAGE AND CULTURE
2 DAY CYCLE

WEIGHT 1.12
1 CREDIT

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by various modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. It is a rigorous, fast-paced course that focuses on writing, speaking and reading in the Spanish language and *will be almost exclusively taught in Spanish*. This course also engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institution); practices (patterns of social interactions within a culture); and perspectives (values, attitudes and assumptions). **Prerequisite:** Successful completion of Spanish III with a 93% average or better. Additionally, students enrolling in AP Spanish must complete the Spanish IV grammar/vocabulary summer work.