POCONO MOUNTAIN SCHOOL DISTRICT
CYBER PROGRAM

2015-2016 COURSE CATALOG

The Mission of The Pocono Mountain School District is To Prepare All Students for Tomorrow's Challenges and Opportunities.

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GRADUATION REQUIREMENTS

To be eligible for high school graduation, all students must demonstrate that they have met the standards established by the Pennsylvania Department of Education and approved by the Pocono Mountain School Board. Students who graduate prior to the class of 2017 must also complete a comprehensive project in the 12th grade English class. The basic graduation requirements, which all students must successfully pass, to be eligible for a diploma include the following:

4-Year Phase In	**Seniors 2016**	**Juniors 2017**	**Sophomores 2018**	**Freshmen 2019**
Starting credits	8	0	0	0
2013-2014	6	6	6	6
2014-2015	6	6	6	6
2015-2016	6	6	6	6
2016-2017	-	6	6	6
Total credits possible	26	24	24	24
Total credits needed	24	22	22	22

Students who meet the prerequisites may earn graduation credit for Algebra I, French, and Spanish when taken in the seventh or eighth grade. These credits will be utilized in calculation of class rank and grade point average.

For each successful year of participation at the Monroe Career and Technical Institute, students will receive three (3) credits.

KEYSTONE GRADUATION REQUIREMENT

The Commonwealth of Pennsylvania and the Pocono Mountain Board of School Directors require students to take the Keystone Exams in Algebra I, Biology, and Literature. The purpose of the end-of-course assessments is to measure students' academic proficiency in specific core courses. Students enrolled in Keystone related courses and grade 11 students who have not demonstrated proficiency on the Algebra I, Biology or Literature Keystone Exams must take or retake the appropriate Keystone Exam. Students not meeting the proficiency standards will not graduate.

Students in grade 12 who indicate a need for remediation as a result of Keystone Exam scores must demonstrate proficiency through the afterschool Pathways to Proficiency Program. This is a local school board requirement for graduation.

Please note: Beginning with the class of 2017, a student below grade 12 who has not demonstrated proficiency on a Keystone Exams (Literature, Algebra, Biology) will be required to participate and demonstrate proficiency in one or more "Project Based Assessments" as designed by the Pennsylvania Department of Education. This is a Chapter 4 requirement for graduation.

STANDARD DEMONSTRATION

Completion of a course sequence is the recommended process for demonstrating standard attainment. Other ways to demonstrate standard attainment are:

- Complete standards by meeting the goals of an Individual Education Plan (I.E.P.)
- Complete standards when the student is in a pre-approved foreign exchange program (NOTE: student standard completion will be evaluated upon the student's return to school)

COURSE TRANSITION SEQUENCE CHARTS

MATH TRANSITION SEQUENCE

Math Course Transition Sequence for Students taking Algebra IA and Algebra IB 2014-2015 School Year through 2017-2018 School Year				
Graduation Year	**15-16 Course**	**16-17 Course**	**17-18 Course**	**18-19 Course**
Class of 2017-2018	Algebra IA	Algebra IB	Geometry	Algebra II
Class of 2016-2017	Algebra IB	Geometry	Algebra II	
Class of 2015-2016	Geometry	Algebra II		
Class of 2014-2015	Topics of Math			

SCIENCE TRANSITION SEQUENCE

Transition Sequencing of Science Courses 2014-2015 School Year through 2017-2018 School Year					
Graduation Year	**Grade Level**	**14-15 Course**	**15-16 Course**	**16-17 Course**	**17-18 Course**
Class of 2018-2019	9	Biology	Chemistry or General Physical Science	Physics or Earth	Elective
Class of 2017-2018	10	Chemistry or General Physical Science	Physics or Earth Science	Elective	
Class of 2016-2017	11	Physics or Earth Science	Elective		
Class of 2015-2016	12	Physics or Elective			

SOCIAL STUDIES TRANSITION SEQUENCE

Transition Sequencing of Social Studies Courses 2015-2016 School Year through 2018-2019 School Year					
Graduation Year	**Grade Level**	**15-16 Course**	**16-17 Course**	**17-18 Course**	**18-19 Course**
Class of 2018-2019	9	Elective	Civics	Modern US History	World History
Class of 2017-2018	10	Civics	Modern US History	World History	
Class of 2016-2017	11	Modern US History	World History		
Class of 2015-2016	12	Elective			

NCAA ATHLETIC ELIGIBILITY

Pocono Mountain School District makes course recommendations based on the most appropriate academic placement. All students whose future plans included enrolling in college and participating in Division I or Division II athletics must be certified by the NCAA Initial-Eligibility Clearinghouse. It is the responsibility of the student to obtain the most recent revaluation of Pocono Mountains approved course list from his/her counselor or the NCAA web site at:

http://web1.ncaa.org/ECWR2/NCAA_EMS/NCAA.jsp

Course modifications and new courses are submitted to the NCAA each year. Therefore it very important to check yearly for any changes in course approvals and eligibility requirements.

Applications, available on the web site, must be completed in order to obtain the certification. The appropriate time to file this application is during the fall of the senior year. An official transcript from the School District must accompany the request for evaluation. If this process is not followed, the student will not be permitted to participate in college athletics during the freshman year. To be eligible for Division I, you will need to present 16 core courses in the following breakdown:

4 years of English
3 years of mathematics (Algebra I or higher)
2 years of natural/physical science (one year of lab if offered by high school)
1 year of additional English, mathematics or natural/physical science
2 years of social studies
4 years of additional core courses (from any area above, foreign language or comparative religion/philosophy).

To students applying for NCAA Division I and II sports:

Any credits taken outside of Pocono Mountain School District for either remediation or original credit may not be approved by the NCAA. It is the responsibility of the student to contact the educational institution to verify whether the course falls under the approved course list for NCAA. It is also the student's responsibility to obtain a transcript from the educational institution indicating the course, grade and credit to include in his/her application for NCAA eligibility.

Divisions I and II Initial-Eligibility Requirements

Core Courses

- **NCAA Divisions I and II require 16 core courses**. See the charts below.
- **Beginning August 1, 2016, NCAA Division I will require 10 core courses** to be completed **prior to the seventh semester** (seven of the 10 must be a combination of English, math or natural or physical science that meet the distribution requirements below). These 10 courses become "locked in" at the start of the seventh semester and cannot be retaken for grade improvement.

    o *Beginning August 1, 2016, it will be possible for a Division I college-bound student-athlete to still receive athletics aid and the ability to practice with the team if he or she fails to meet the 10 course requirement, but would not be able to compete.*

Test Scores

- **Division** I uses a sliding scale to match test scores and core grade-point averages (GPA). The sliding scale for those requirements is shown on Page No. 2 of this sheet.
- **Division II** requires a minimum SAT score of 820 or an ACT sum score of 68.
- The SAT score used for NCAA purposes includes **only** the critical reading and math sections. The writing section of the SAT is not used.
- The ACT score used for NCAA purposes is a **sum** of the following four sections: English, mathematics, reading and science.
- **When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency. Test scores that appear on transcripts will not be used.**

Grade-Point Average

- **Be sure** to look at your high school's List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenter.org). Only courses that appear on your school's List of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.
- **Division I** students enrolling full time **before August 1, 2016**, should use Sliding Scale A to determine eligibility to receive athletics aid, practice and competition during the first year.
- **Division I** GPA required to receive athletics aid and practice **on or after August 1, 2016,** is 2.000-2.299 (corresponding test-score requirements are listed on Sliding Scale B on Page No. 2 of this sheet).
- **Division I** GPA required to be eligible for competition **on or after August 1, 2016,** is 2.300 (corresponding test-score requirements are listed on Sliding Scale B on Page No. 2 of this sheet).
- **The Division II** core GPA requirement is a minimum of 2.000.
- Remember, the NCAA GPA is calculated using NCAA core courses only.

DIVISION I

16 Core Courses

4 years of English.
3 years of mathematics (Algebra I or higher).
2 years of natural/physical science (1 year of lab if offered by high school).
1 year of additional English, mathematics or natural/physical science.
2 years of social science.
4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).

DIVISION II

16 Core Courses

3 years of English.
2 years of mathematics (Algebra I or higher).
2 years of natural/physical science (1 year of lab if offered by high school).
3 years of additional English, mathematics or natural/physical science.
2 years of social science.
4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).

Sliding Scale A
Use for Division I prior to August 1, 2016

NCAA DIVISION I SLIDING SCALE

Core GPA	SAT (Verbal and Math ONLY)	ACT Sum
3.550 & above	400	37
3.525	410	38
3.500	420	39
3.475	430	40
3.450	440	41
3.425	450	41
3.400	460	42
3.375	470	42
3.350	480	43
3.325	490	44
3.300	500	44
3.275	510	45
3.250	520	46
3.225	530	46
3.200	540	47
3.175	550	47
3.150	560	48
3.125	570	49
3.100	580	49
3.075	590	50
3.050	600	50
3.025	610	51
3.000	620	52
2.975	630	52
2.950	640	53
2.925	650	53
2.900	660	54
2.875	670	55
2.850	680	56
2.825	690	56
2.800	700	57
2.775	710	58
2.750	720	59
2.725	730	59
2.700	730	60
2.675	740-750	61
2.650	760	62
2.625	770	63
2.600	780	64
2.575	790	65
2.550	800	66
2.525	810	67
2.500	820	68
2.475	830	69
2.450	840-850	70
2.425	860	70
2.400	860	71
2.375	870	72
2.350	880	73
2.325	890	74
2.300	900	75
2.275	910	76
2.250	920	77
2.225	930	78
2.200	940	79
2.175	950	80
2.150	960	80
2.125	960	81
2.100	970	82
2.075	980	83
2.050	990	84
2.025	1000	85
2.000	1010	86

Sliding Scale B
Use for Division I beginning August 1, 2016

NCAA DIVISION I SLIDING SCALE

Core GPA	SAT (Verbal and Math ONLY)	ACT Sum
3.550	400	37
3.525	410	38
3.500	420	39
3.475	430	40
3.450	440	41
3.425	450	41
3.400	460	42
3.375	470	42
3.350	480	43
3.325	490	44
3.300	500	44
3.275	510	45
3.250	520	46
3.225	530	46
3.200	540	47
3.175	550	47
3.150	560	48
3.125	570	49
3.100	580	49
3.075	590	50
3.050	600	50
3.025	610	51
3.000	620	52
2.975	630	52
2.950	640	53
2.925	650	53
2.900	660	54
2.875	670	55
2.850	680	56
2.825	690	56
2.800	700	57
2.775	710	58
2.750	720	59
2.725	730	60
2.700	740	61
2.675	750	61
2.650	760	62
2.625	770	63
2.600	780	64
2.575	790	65
2.550	800	66
2.525	810	67
2.500	820	68
2.475	830	69
2.450	840	70
2.425	850	70
2.400	860	71
2.375	870	72
2.350	880	73
2.325	890	74
2.300	900	75
2.299	910	76
2.275	910	76
2.250	920	77
2.225	930	78
2.200	940	79
2.175	950	80
2.150	960	81
2.125	970	82
2.100	980	83
2.075	990	84
2.050	1000	85
2.025	1010	86
2.000	1020	86

For more information, visit the NCAA Eligibility Center website at www.eligibilitycenter.org.

ADDITIONAL PROGRAMS

MONROE CAREER TECHNICAL INSTITUTE (MCTI)

The career technical program begins in the tenth grade. Competitive admission quotas make it necessary for applicants to have a record of good conduct, attendance, and passing grades in their academic subjects before their application can be processed. (See Appendix-pg. 77)

DIVERSIFIED OCCUPATIONS

The Diversified Occupations Program is a work-study program that is designed to combine classroom instruction with on-the-job training in a career area of the student's choice. Students are responsible for finding part-time employment with a local employer. Students are encouraged to find jobs that are directly related to the career field they wish to pursue after graduating from high school.

The Diversified Occupations Program is a partnership between the home school, MCTI, the employer, the student and the student's parents. This training program is designed to help the student transition from school to the world of work while gaining valuable life and work experience. This program is conducted at the student's district high school campus.

CONCURRENT ENROLLMENT

A senior can elect to participate in the concurrent enrollment program if they meet the following criteria:

- Enrolled in the concurrent enrollment program at any school in agreement with PMSD (check with the guidance department)
- A copy of the student's concurrent enrollment registration must be submitted to the student's guidance counselor
- Student must submit an official transcript from the college attended

SPECIAL EDUCATION

PHILOSOPHY

The Pocono Mountain School District is committed to setting high standards for all students receiving Special Education services. Special Education supports and services in the Pocono Mountain School District include a full continuum of services and are in compliance with federal and state laws.

Every student in the Pocono Mountain School District is provided an educational program that fosters independence and success to transition successfully to post-secondary education or the workforce. Students are provided access to the general education curriculum with specially designed instruction based on the student's individual strengths and needs. An alternative curriculum/program will be provided, if and when appropriate, based on the student's individual strengths and needs.

GIFTED EDUCATION

PHILOSOPHY

Pocono Mountain School District is committed to providing quality Gifted Education supports and services, which encompass the following objectives: expansion of academic attainments and intellectual skills; stimulation of intellectual curiosity, independence and responsibility; development of originality and creativity; development of a positive attitude toward self and others; and development of desirable social and leadership skills.

Students identified as Mentally Gifted based on the results and recommendations of the Multi-Disciplinary Gifted Evaluation (MDGE) will be provided an array of academically challenging courses as outlined in the Gifted Individualized Education Program (GIEP). Further provisions for individual enrichment and/or acceleration will be provided based on the student's individual strengths and needs, such as college level courses and/or independent study.

SPECIAL EDUCATION STATEMENT OF LEAST RESTRICTIVE ENVIRONMENT

The Pocono Mountain School District is committed to delivering curriculum for students with special needs in the Least Restrictive Environment (LRE) with specially designed instruction based upon the results and recommendations of a Multi-Disciplinary Evaluation (MDE) and as outlined in the Individualized Education Program (IEP). Least Restrictive Environment means that a student identified as having a disability will be educated with non-disabled peers to the maximum extent appropriate with supplementary aids and services necessary to achieve individual educational goals and objectives.

ELEMENTARY

4th Grade English Language Arts

At this level, students continue to build knowledge of letters and sounds, syllables and word formation to increase their knowledge of reading and spelling words with multiple syllables. This course was designed to help students learn to read and spell more easily and accurately and to increase reading comprehension. Students in this course read both fiction and nonfiction materials. In addition, students continue to develop their writing and grammar skills by practicing the skills necessary to write essays, stories, plays and fiction. Students begin to use literary devices in their writing and continue to develop good grammar skills. This course urges students to focus on clarity of topic, task and audience of their writing by developing more complex sentences.
VLN Course: 4th Grade Reading and Spelling
VLN Course: 4th Grade Writing and Grammar

4th Grade Math

Students review place value and basic addition and subtraction facts before moving on to multiplication and division with 1-2 and 3-digit numbers. Fractions and decimals are also covered along with the foundations of measurement, time and temperature. Students are introduced to data and various types of graphs, and learn both how to create and interpret them. The thread of problem solving runs throughout each skill covered in the course.

4th Grade Science

At this level, students are exposed to a wide array of scientific topics and concepts. The year begins with a unit on life science and encompasses learning about cells, ecosystems, plants, animals and life processes. The next unit of study is entitled *Earth Science: Earth and Beyond* and includes learning about Earth's history, the sun, moon, planets, water and the weather. The final unit of study focuses on physical science and includes learning about the properties of change matter.

4th Grade Social Studies

The scope of learning for this class covers topics at the state, national and international levels. Through this course, students will be able to differentiate common characteristics of social, political, cultural and economic groups that are critical to our history. Students will also locate and analyze historical documents and artifacts to distinguish conflict and cooperation among different cultures and groups that have impacted the development of our nation and world. This course will also enhance the student's ability to use common geographic tools to interpret information on people, places and regions, as well as identify key principles and ideas within our governmental system.

Health and Physical Education

In this course, students will learn about Health and Wellness. Students will complete 5 units of study, which include: *Mental, emotional, Family and Social Health, growth and Nutrition, Personal Health and Safety, Drugs and Disease Prevention,* and *Community and Environmental Health.*

ELEMENTARY

5th Grade English Language Arts

In this course, students build upon the reading comprehension and spelling skill sets they have studied at previous grade levels to read and comprehend both fiction and nonfiction texts independently by utilizing strategies such as re-telling, summarizing, note-taking, connecting to prior knowledge and extending ideas. At this level, students will write poems, stories and plays using literary elements and devices while maintaining a sharp, clear focus on the topics presented. At the 5th grade level, students build upon their knowledge of writing informational pieces with a focus on effective persuasive writing. Students begin to develop skills that help them to create a clearly-stated position or opinion in their writing that includes supporting details and cited sources.

VLN Course: 5th Grade Reading and Spelling
VLN Course: 5th Grade Writing and Grammar

5th Grade Math

Students review place value and the basic mathematical operations before moving on to multiplication and division with 2 – and 3- digit numbers. Addition, subtraction and multiplication with fractions and decimals are covered along with an introduction to concepts of geometry, perimeter and area. Students use both customary and metric units of measurement and further explore data, graphs and probability. The thread of problem solving runs throughout each skill covered in the course.

5th Grade Science

At this level, students are introduced to the important topics of life, earth, and physical sciences. Topics in this class include characteristics of living things and their environments, earth and its resources, astronomy, weather, climate and the properties of matter.

5th Grade Social Studies

In this course, students will differentiate how continuity and change in U.S. history, world history and state history interact and are enacted. Students will illustrate concepts and knowledge through a variety of historical documents and artifacts while being able to locate primary and secondary sources for research. Students will also be able to identify our governmental system and describe the roles and responsibilities of governmental offices and officials. Finally, this course will enhance the students' familiarity with geography and the interactions between people, environment and regions.

Health and Physical Education

In this course, students will expand upon their earlier studies related to Health and Wellness. Topics of study include: Mental, Emotional, Family and Social Health, Growth and Nutrition, Personal Health and Safety Drugs and Disease Prevention, Managing Stress, your Heart and Lungs, The Stages of Life, A Balanced Diet, How to Handle Emergencies, Resisting Pressure, Signs of Illness and Careers in Health and Fitness. Healthy lifestyle choices are explored and encouraged.

ELEMENTARY

6th Grade English Language Arts

English Language Arts 6 is designed to prepare students to read grade-appropriate, complex literature and informational text and cite textual evidence to support analyses. Students analyze both the structure and content of complex, grade-appropriate texts, determining how sentences and paragraphs within texts influence and contribute to the unfolding of a plot and the development and elaboration of events or ideas. Sixth grade students become more attuned to using context, knowledge of Greek and Latin roots and affixes, and word analysis to determine the meaning of academic words. Students are increasingly challenged to sharpen their ability to write and speak with more clarity and coherence, providing clear reasons and relevant evidence.

6th Grade Math

Students in this course work with fractions, decimals and percentages. They use these tools to solve problems relating to geometry, algebra and probability. They develop, implement and evaluate problem-solving plans for various types of mathematical problems.

VLN Course: Mathematics – Course 1

6th Grade Science

In their study of Earth Science, students learn about Earth's materials and the changes to its surface and interior, along with the forces that cause those changes. Other topics covered include weather and climate, the ocean and the study of our solar system, galaxies and the universe.

VLN Course: Earth Science

6th Grade Social Studies

Middle school students begin their study of world History by exploring human history from ancient civilizations to the modern world. They examine the major themes of world history (geography, economics, government, citizenship, culture, global relations, science and technology and constitutional heritage). The text is supported by primary sources, maps and online resources.

VLN Course: Middle School World History

Health and Physical Education

Middle school students learn introductory health and wellness information they can utilize to develop healthy attitudes and behavior patterns. Topics include: fitness, first aid, nutrition, mental and emotional heal6h, conflict resolution, substance abuse and reproductive health. They physical education component includes an activity log with an expectation of at least 90 minutes of documental physical activity per five days of school weekly.

ENGLISHLANGUAGE ARTS

7th Grade English Language Arts

English Language Arts 7 is designed to prepare students to demonstrate their ability to read challenging complex texts closely and cite multiple examples of specific evidence to support their claims. Students will able to recognize the interplay between setting, plot, and characters and provide an objective summary of a text apart from their own reaction to it. Seventh grade students trace how an argument develops within a text and assess the validity of the evidence. As growing writers, students cite several sources of specific, relevant evidence when supporting their own point of view about texts and topics.

8th Grade English Language Arts

English Language Arts 8 is designed to prepare students to grapple with high-quality, complex, nonfiction texts and great works of literature. The focus of informational texts shifts from narrative to expository. Students know how to cite textual evidence supporting an analysis or critique. Eighth grade students read closely and find evidence to use in their own writing; they analyze two or more texts that provide conflicting information on the same topic and identify whether the disagreement is over facts or interpretation. As growing writers, students focus on organizing ideas, concepts, and information into broader categories; choosing relevant facts well; and using varied transitions to clarify or show the relationships among elements.

9th Grade English Language Arts: Introduction to Literature and Composition

Academic ELA 9 is designed to prepare students for the post-secondary education of their choice. Students are actively involved in a study of various literary genres, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor.

10th Grade English Language Arts: American Literature

Academic ELA 10 is designed to prepare students for the post-secondary education of their choice. American Literature courses focus upon commonly known American authors and their work. American Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. ***NOTE: All students enrolled in this course are required to take the Keystone Literature Exam.***

11th Grade English Language Arts: European Literature

Academic ELA 11 is designed to prepare students for the post-secondary education of their choice. European Literature courses provide a survey of European Literature from Middle Ages to the present. European Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. A research paper is required.

12th Grade English Language Arts: World Literature

Academic ELA 12 is designed to prepare students for the post-secondary education of their choice. World Literature courses use representative literature selections from ancient and/or modern times from countries around the world. World Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. A research paper is required.

Writer's Workshop I

Elective*18 weeks*

This course explores strategies used in creative writing and helps students to develop a deeper appreciation of good writing and established authors. Students create a variety of works ranging from poems to short stories. While writing prose, students review rules and guidelines for correct punctuation, grammar and sentence structure. Effective, appropriate and economical word choice is also practiced.
VLN Course: Creative Writing

Journalism

Elective *36 weeks*

This high school course includes a brief history of American journalism and discusses the duties of a journalist. Additional topics that are taught in this course include the rights and responsibilities of journalists, style and editing, news writing, sports writing, feature writing, editorial writing, newspaper design, yearbook design, advertising and much more.
VLN Course: Journalism

Fairytales, Myths & Legends

Elective *18 weeks*

This course analyzes the Greek and Roman myths about creation, nature, love and heroism. Students study the classics, becoming acquainted with some of the most famous stories of all time. They also discover the beginnings of drama and man's attempt to explain his universe as they delve into myths about Greek and Roman gods and their relationships with mortals.
VLN Course: Mythology

MATHEMATICS

7th Grade Math

In grade 7, instructional time should focus on four critical areas based on the Pennsylvania Core Mathematical Standards: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Essentials of Algebra

In grade 8, instructional time should focus on three critical areas based on the Pennsylvania Core Mathematical Standards: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

Algebra IA

Prerequisite: Successful Completion of 8th Grade Essentials of Algebra

Get ready to meet the requirements for life in the 21st century by developing skills in algebra through applications from the first part of a multi-year sequence of Algebra I. This course covers the same topics as the first half of the Algebra I curriculum including the study of properties of rational numbers, ratio, proportion, the rectangular coordinate system, and solving first degree equations and inequalities. Making connections between equations, tables, and graphs of linear equations will be introduced in this course. By associating real-life applications of Algebra with classroom instruction, students are offered a unique way of looking at and learning concepts through the development of concepts, skills, and problem solving. Deficient skills will be emphasized and reinforced within the context of learning Algebra. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year.

Academic Algebra I

Prerequisite: Successful Completion of 8th Grade Essentials of Algebra

Algebra is the language through which most of mathematics is communicated, and it is necessary for further work in nearly all mathematical subjects. This course presents algebraic methods as problem solving tools. The student will learn how to deal with variables, expressions, linear and quadratic equations, linear inequalities, and translating and solving word problems using equations and inequalities. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year. ***Note: All students enrolled in this course are required to take the Keystone Exam.***

Algebra IB

Prerequisite: Successful Completion of Algebra IA OR teacher/administrative approval

Algebra IB is the second course of the multi-year sequence for Algebra I. This course covers the same topics as the second half of the Algebra I curriculum while reinforcing the concepts from Algebra IA including linear and quadratic equations, linear inequalities, and translating and solving word problems using equations and inequalities. Making connections between equations, tables, and graphs of linear equations will be continued from Algebra IA along with the continued study of systems of equations and inequalities. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year. ***Note: All students enrolled in this course are required to take the Keystone Exam.***

Academic Geometry

Prerequisite: Successful Completion of Academic Algebra I

Geometry is a course that emphasizes logical reasoning, spatial visualization skills, and their application to problem solving. Students will write two column deductive formal proofs and use algebraic skills to set up and solve problems based on geometric representation. One of the most important connections in all of mathematics is that between geometry and algebra. The interplay between the two strengthens students' abilities to formulate and analyze problems from both within and outside mathematics. Geometry will emphasize an abstract, formal approach to the study of geometry. The course includes topics such as properties of plane and solid figures, deductive methods of reasoning and use of logic, the study of postulates, theorems and proofs, concepts of congruence, similarity, parallelism, perpendicularity, and proportion, and rules of angle measurement in triangles.

Academic Algebra II

Prerequisites: Successful Completion of Academic Algebra I AND Academic Geometry OR teacher/administrative approval

Academic Algebra II enhances the depth of Algebra and is a continuation of Algebra I. Graphing calculators will play an important role as students interpret graphs, explore their properties, and determine relationships between graphs. The properties of real numbers will be extended. The course includes topics such as set theory, operations with rational and irrational

expressions, factoring of rational expressions, in-depth study of linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, graphing of constant, linear, and quadratic equations, properties of higher degree equations, and operations with exponents.

Algebra II

Prerequisite: Successful Completion of Academic Algebra I OR Algebra IA/Algebra IB, AND Geometry OR teacher/administrative approval.

Algebra II enhances the depth of Algebra and is a continuation of Algebra I. The properties of real numbers will be extended. The course includes topics such as set theory, operations with rational and irrational expressions, factoring of rational expressions, in-depth study of linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, graphing of constant, linear, and quadratic equations, properties of higher degree equations, and operations with exponents. Graphing calculators will play an important role as students interpret graphs, explore properties, determine relationships between graphs and develop the different concepts in Algebra II.

Geometry

*Prerequisite: Successful Completion of Algebra I**B** OR teacher/administrative approval*

Geometry will examine connections between geometry and algebra. Many experiences will be provided to deepen the understanding of shapes and the properties. The course will emphasize logical reasoning, spatial visualization skills, and the application to problem solving. Students will explore and make sense out of how two column deductive formal proofs are written. The interplay between the two strengthens students' abilities to formulate and analyze problems from both within and outside mathematics. Geometry will emphasize an abstract, formal approach to the study of geometry. The course includes topics such as properties of plane and solid figures, deductive methods of reasoning and use of logic, concepts of congruence, similarity, parallelism, perpendicularity, proportion, and rules of angle measurement in triangles.

Topics of Math

Prerequisites: Successful Completion of Applied Algebra II

Note: Students who have already passed Academic Algebra II MAY NOT take this course.

Skills and competencies from students' previous mathematics courses will be used in a variety of hands-on settings. Graphing calculators will continue to play an important role as students interpret graphs, explore their properties, and determine relationships between graphs as they continue their study of Algebra II content during their 12th grade year.

Algebra III/Trigonometry

Prerequisite: Successful Completion of Academic Algebra I, Academic Geometry AND Academic *Algebra II OR teacher/administrative approval*

This course will provide a review and extension of the topics studied in Algebra II. Emphasis will be placed, on a more in-depth study of Algebra II concepts in addition to solving higher degree equations and applications of the trigonometric functions. This is the ideal mathematics course to help prepare students for higher level mathematics.

Academic Functions

Prerequisite: Successful Completion of Academic Geometry AND Academic Algebra II or teacher/administrative approval

Functions includes the study of functions that are circular, polynomial, logarithmic, and exponential. The focus on understanding the behavior of functions leads to an emphasis on using a graphing calculator. You will also learn to resolve vectors, use matrices and determinants to solve systems of equations, and discover that the complex numbers are not too complex after all. To help insure success in Functions, a student must successfully complete all outcomes for pre-requisite courses.

Statistics

Prerequisite: Successful Completion of at least Academic Algebra II

Students who have completed Academic or Honors Algebra II may take Statistics as an elective course along with their 12th grade required math course. Statistical literacy is vital in today's society; numerical "information" confronts us daily. Today's students need to be able to determine whether claims based on numerical information are reasonable and accurate. Statistics focuses on the introduction of the study of statistics and probability. The course will include topics such as basic probability, odds, descriptive statistics (measures of central tendency, presentation of data (including graphs), normal distribution and measures of variability) and inferential statistics (confidence intervals, linear regression and hypothesis testing). Students may take Statistics as their 12th grade core math course if they have successfully completed Algebra III/Trigonometry or Functions AND have a teacher recommendation.

SCIENCE

7th Grade Physical Science

The middle school physical science course focuses on conservation of matter, conservation of energy, motion and forces, and energy. Students will work on developing skills in data recording, classifying, measuring, observing, hypothesizing, analyzing, evaluation and inferring.

8th Grade Life Science

Life Science is the study of cells, heredity, biological populations and their changes over time. It includes human biology, ecology, diversity of organisms and the history and nature of science. In this course students will have the opportunity to conduct and design experiments, identify and classify organisms. Students will work on developing skills in data recording, classifying, measuring, observing, hypothesizing, analyzing, evaluation and inferring.

9th Grade Biology

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy. **Note: All students enrolled in this course are required to take the Keystone Exam.*

10thGrade General Physical Science

Physical Science courses involve study of the structures and states of matter. Typically (but not always) offered as introductory survey courses, they may include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.

11th Grade Earth Science

Earth Science courses offer insight into the environment on earth and the earth's environment in space. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography, geology, astronomy, meteorology, and geography.

Environmental Science I – Elective

18 Weeks

This course examines the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, this course covers the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

Environmental Science II – Elective *18 Weeks*

This course will expand upon the mutual relationships between organisms and their environment. Topics covered include ecological processes, the impact of humans on natural systems and the development of practices that will ensure sustainable systems.

Astronomy I - Elective *18 weeks*

Students explore the process of astronomical scientific discovery and begin to develop an understanding of the integrated study of the universe, which includes concepts of physics, mathematics and chemistry. This course traces astronomy's observational foundation and continues to an in-depth exploration of our solar system. It emphasizes critical thinking and visualization.

VLN Course

Astronomy II - Elective *18 weeks*

At this level, students complete an extensive survey of the universe, moving beyond the exploration of our solar system found in Astronomy I to the vast wonders of our galaxy and larger cosmological concepts and structures. Other topics covered extensively include stellar formation, evolution, novae, supernovae and black holes and other strange objects. Additionally, students learn about the birth, future and fate of the universe as well as theories of extraterrestrial life and our place in the cosmos.

VLN Course

SOCIAL STUDIES

7TH Grade World Geography

The World Geography course will focus on exploring patterns and relationships throughout the world using the five themes of geography and economic reasoning within the context of world regional study. Geographic and economic research tools will be used in order to make decisions and problem solve. Major course strands include: government, economics, geography, and culture.

Early US History (8th Grade)

The Early US History course will focus on American history from the Exploration and Colonization period to the Reconstruction Period following the Civil War. Students will be exposed to the historical, geographic, political, economic, and sociological events which influenced the development of the United States and the resulting impact on world history.

Civics (10th Grade *Elective*)

The Civics course will examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system.

Modern US History (11th Grade)

Modern U.S. History courses will examine the history of the United States from the Civil War or Reconstruction era through the present time. This course will include a historical review of political, military, scientific, and social developments.

VLN Course

World Religions – Elective

18 weeks

This course explores the development, doctrines and practices of today's major faiths. Students begin by examining personal religious development and then survey major religious movements. Detailed information about the beliefs and practices of Hinduism, Jainism, Buddhism, Daoism, and Confucianism, Shinto, Judaism, Christianity, Islam, and Sikhism are presented. New-Age religious movements and religion in the 21st century complete this extensive exploration of faith and beliefs.

VLN Course

HEALTH AND PHYSICAL EDUCATION

4th Grade Health and Physical Education

In this course, students will learn about Health and Wellness. Students will complete 5 units of study, which include: *Mental, emotional, Family and Social Health, growth and Nutrition, Personal Health and Safety, Drugs and Disease Prevention,* and *Community and Environmental Health.*

VLN Course

5th Grade Health and Physical Education

In this course, students will expand upon their earlier studies related to Health and Wellness. Topics of study include: Mental, Emotional, Family and Social Health, Growth and Nutrition, Personal Health and Safety Drugs and Disease Prevention, Managing Stress, your Heart and Lungs, The Stages of Life, A Balanced Diet, How to Handle Emergencies, Resisting Pressure, Signs of Illness and Careers in Health and Fitness. Healthy lifestyle choices are explored and encouraged.

VLN Course

6th Grade Health and Physical Education

Middle school students learn introductory health and wellness information they can utilize to develop healthy attitudes and behavior patterns. Topics include: fitness, first aid, nutrition, mental and emotional health, conflict resolution, substance abuse and reproductive health. They physical education component includes an activity log with an expectation of at least 90 minutes of documental physical activity per five days of school weekly.

VLN Course

Health – Grades 7-12

Our goal is to develop health literacy in all students. Health literacy is the capacity of an individual to obtain, interpret, and understand basic health information and services and the competence to use such information and services in ways that are health-enhancing. Health-literate individuals understand scientifically based principles of health promotion and disease prevention, incorporate that knowledge into personal health-related attitudes and behaviors, and make good health a personal priority. Units of instruction will vary according to grade level and will include but are not limited to the following: Growth and Development; Mental, Emotional and Social Health; Personal and Community Health; Nutrition; Alcohol, Tobacco and other Drugs; Injury and Prevention and Safety.

Physical Education – Grades 7-12

Physical Education contributes to the physical, intellectual, social and emotional well-being of the student. Physical Education includes an activity log with an expectation of a minimum of 90 minutes (3 – 30 minute sessions) of documented physical activity per five days of school weekly. The curriculum is devoted to promoting activities that promote a positive self-concept by engaging in activities such as fitness, sport, dance and lifetime activities. Each student is able to achieve success according to his/her ability. Participation and involvement are required at all levels. Health related fitness is the goal for all students.

Parenting Skills - Elective

18 weeks

This course covers the basics of parenting and family skills. Topics include conception, contraception, pregnancy, child development, aging and the family.

VLN Course

Promoting Wellness – Elective

18 weeks – Grades 10-12

This course provides students the opportunity to expand their knowledge of wellness in a unique way. Students will spend time learning about self-awareness, stress reduction/management, personal and social skills development, nutrition, fitness concepts, meditation and relaxation techniques. The course is designed for all students who have the desire to live a healthy or healthier lifestyle. **Wellness** is an active process of becoming aware of and making choices toward a healthy and fulfilling life. "...a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." - The World Health Organization. The focus of this course is to increase knowledge of the specific benefits of living a healthy lifestyle.

Fitness/Sport Nutrition and Physiology – Elective

18 weeks – Grades 10-12

This course will help students to understand the function of the nutrients in the body and how these nutrients affect health, fitness and athletic performance. Students will be provided with an overview of the importance of nutrients, the understanding how these nutrients can influence exercise performance and good health for both athletes and active individuals. Key content addressed is to understand why proper nutrition helps athletes prevent injury, enhance recovery, improve daily workouts, and maintain optimal health and body weight.

Strength & Conditioning I Elective

18 weeks – Grades 10-12

This course provides students the opportunity to identify and focus on specific individualized training principles for various goals. The course is designed for all students, whether their goals are sport specific, activity driven or simply fitness based. The focus of this course is to apply fitness training principles learned in this course to create an individualized training program. The student will be able to implement the program throughout the semester with guidance to make appropriate changes as implementation progresses.

Strength & Conditioning II

18 weeks- Grades 10-11

Prerequisite: Strength and Conditioning I

This course provides students with a solid background in Strength and Conditioning to design and implement a personalized training program for themselves. Students will be introduced to advanced training methods and have the opportunity to try these methods and incorporate them into their own personalized training routines.

Wellness & Fitness - Elective

18 weeks – Grades 9-12

This course provides students the opportunity to expand their knowledge of wellness and fitness in a unique way. Students will spend time learning about nutrition, wellness, exercise, fitness components and putting that knowledge into action. The course is designed for all students who have the desire to live a healthy or healthier lifestyle. "Without your health, everything else in life will be more difficult." The focus of this course is to increase their knowledge of the specific benefits of living a healthy lifestyle.

ADDITIONAL ELECTIVES

Business Math *36 weeks*

This high school business course is structured utilizing a three-pronged approach: basic math review, personal finance and business mathematics. It builds and strengthens students' basic math skills in personal and business mathematics.

VLN Course

Study Skills *18 weeks*

The study skills course hones reading and study skills needed for academic success in high school. Students develop such abilities as studying techniques, note taking, time management, listening, test taking and research. They gain confidence as they master these basic skills and have the opportunity to apply them to other courses.

VLN Course

Office Technology and Communication *18 weeks*

Learning the skills of publication design and layout are essential to business success in today's market. Students will learn the skills necessary to design pamphlets, signs, advertisements, and other business publications. The four most popular tools in the computer world - word processing, spreadsheet, database, and graphics will be the focus of this course. Students will produce documents that can be used for personal use and for use in the business world. Students will utilize and navigate interactive media tools and environments, apply literacy concepts to technological interactions, use online collaborative tools and simulate a business environment while working with Microsoft Office tools.

Personal Finance (12th Grade) *36 weeks*

The Personal Finance and Financial Literacy course exposes students to important financial issues they are likely to encounter in their lives. Topics include home buying, balancing a budget and responsible use of credit and borrowing. This knowledge will increase students' abilities to manage their finances in a responsible and intelligent manner.

VLN Course: Personal Finance and Financial Literacy

Digital Citizenship *18 weeks*

This course is entirely web-based and will prepare students to safely and effectively communicate online while helping them to become familiar with website privacy policies. Students will be able to identify cyber-bullying and ways to respond, thus making their online experience more enjoyable. Additional concepts and information students will gain from this course include understanding copyright rules, browsing websites and various methods of downloading.

VLN Course