



# **Program of Studies 2023-2024**

## **Grades 9-12**

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**Springdale Junior-Senior High School**  
**Allegheny Valley School District**  
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# Allegheny Valley School District

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## **SPRINGDALE JUNIOR-SENIOR HIGH SCHOOL GUIDANCE DEPARTMENT**

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*The mission of the Allegheny Valley School District, a group of small traditional communities, is to educate all students to achieve their maximum potential. A dedicated staff, in partnership with school, home, and community, will empower students to become responsible and contributing citizens able to meet challenges in an international society.*

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*The Allegheny Valley School District is an equal opportunity education institution and will not discriminate on the basis of race, color, national origin, and handicap in its activities, programs, or employment practices as required by Title IV, Title IX, and Section 504. For more information, contact: Dr. Hamsini Rajgopal at 724-274-5300.*

## INTRODUCTION

This Program of Studies Guide is published to provide students and their parents/guardians with a description of the high school academic program. Students and their parents/guardians are urged to become familiar with this guide so that they will be prepared to choose a suitable educational program. The administrative staff, guidance staff, and all teachers are available to assist the student and his/her parents/guardians in this planning.

The counseling staff provides personal guidance for each student in the junior-senior high school aiming at the development of the "whole" individual. To help mold each person's intellectual growth, the counselors identify individual capacities through a standardized testing program. The test results are used in guiding the individual to make the best use of mental, physical, and manual abilities. The school program includes offerings to help meet the needs of all students.

The guidance program is devoted to helping each student select the courses and programs best suited to his or her own strengths. As a result of the proper coordination of high school courses and activities, the student can then make appropriate selections for post high school training. Vocational counseling is approached with the student's abilities and limitations and interests in mind as well as information on current occupational trends.

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## GRADUATION REQUIREMENTS

The following credits (24 Credits minimum) must be earned in each of the following areas:	
English	4.0 Credits
Mathematics	3.0 Credits
Social Studies	4.0 Credits
Science	3.0 Credits
Health	1.0 Credit
Physical Education	2.0 Credits
Personal Finance	0.5 Credits
Communications/Public Speaking	0.5 Credits
Electives (one in Arts or Humanities)	5.0 Credits
One additional Credit in Science, Math, or an approved	
S.T.E.M.-related Class	1.0 Credit
*Courses in the Program of Studies are S.T.E.M. credit eligible	

To participate in graduation, a student must successfully complete the academic requirements of the state and school district, satisfy all financial obligations, and complete all disciplinary requirements. A student also must be present at graduation rehearsal(s) and follow the graduation procedures that are distributed at that time.

### S.T.E.M. EDUCATION

**S.T.E.M.** (Science, Technology, Engineering and Math) education prepares students for successful employment, post-secondary education or both. S.T.E.M. requires more technically sophisticated abilities, including the application of mathematics, science skills and concepts. These skills and concepts are infused in many courses offered at Springdale Jr./Sr. High School and it is expected that the students will complete at least 1.0 credit in a S.T.E.M. eligible elective.

### SCHEDULE CHANGES

All schedule changes must be made during designated summer hours. **Schedule changes cannot be made after school begins, unless the following exceptions apply:**

#### Exceptions:

1. If a student's schedule is incorrect as a result of a clerical error.
2. If a student has significantly changed his/her future plans and other classes are required - suggested by the college of his/her choice.
3. If, based on the student's performance during the final quarter or summer school, the student should move to the advanced academic course selection.

### CLASS STANDING

The established policy regarding student promotion from one grade level to the next during the high school years is as follows:

- A. To receive credit for a course, a student must earn a D or better.
- B. Successful completion of a minimum of 6 credits for promotion to sophomore standing.
- C. Successful completion of a minimum of 12 credits for promotion to junior standing. A review with the principal will be needed for students who have insufficiencies in English, Social Studies, Physical Education, Math or Science.

- D. Successful completion of a minimum of 18 credits for promotion to senior standing. A review with the principal will be needed for students who have insufficiencies in English, Social Studies, Physical Education, Math, and/or Science.
- E. Failed subjects should be repeated in the next grade or during the summer session.

**Summer school is recommended for students that have failed required courses in grades 7 through 12**

## **GRADING**

Grades will be reported at the close of each nine-week period. The following interpretations of the grading system used in Springdale High School indicate the degree of achievement. Advanced Placement (AP) courses will be weighted by additional quality points calculated on the percentage grade. All courses may not be offered on an annual basis.

### **Grade equivalents:**

90-100%	A	Excellent or superior work
80-89%	B	Good or above average work
70-79%	C	Fair or average work
60-69%	D	Poor, but passing work. This is the lowest quality of work for which credit is given but carries no recommendation for achievement for college entrance credit. This grade may not permit a student to do second year work in certain sequential subjects.
0-59%	F	Failure - no credit
I		Denotes that the pupil's work is not complete due to conditions beyond the student's control. Unless this work is completed in accordance with the District's time limits and regulations of the teacher issuing the grade, the grade will be recorded as an "F".
W		Any dropped course will be noted as a W (the grade the student had when dropping the course.)
W		Withdrawal from course – A “W”, along with the student's grade at the time of withdrawal (WA, WB, WC, WD, WF) will appear on the transcript. No credit is awarded for a dropped course.



<b>LANGUAGE ARTS COURSES</b>
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Course Number: <b>7120</b>	Title: <b>Academic English 9</b>	1 Credit
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Academic English 9 includes literature, composition, vocabulary, research, and oral communication skills. Emphasis will be on developing strategies to become proficient readers and writers to build student literacy, literary appreciation, and self-directed learning. Students will be expected to meet and follow all objectives of the curriculum.

**Prerequisite:** 60% or better in Language Arts 8

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Course Number: <b>7121</b>	Title: <b>Honors English 9</b>	1 Credit
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Honors English 9 promotes advanced comprehension and written language skills through the study of the short story, drama, novel, non-fiction text. Logical thinking skills and clear expression are essential. Writing instruction is designed to advance the student's critical and research skills, and to foster an appreciation of various literary forms. The reading and writing pace is accelerated and evaluative standards are high. Completion of summer work is a requirement of this course.

**Prerequisites:** All of the following: teacher recommendation, 87% in Language Arts 8, Proficient on the Grade 8 PSSA Exam

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Course Number: <b>7130</b>	Title: <b>Academic English 10</b>	1 Credit
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Academic English 10 includes literature, composition, vocabulary, research, study/test-taking skills, and oral communication skills. Emphasis will be on developing strategies to become proficient readers and writers to build student literacy, literary appreciation, and self-directed learning. Students will be expected to meet and follow all objectives of the curriculum. Upon completion of this course, students will take the Literature Keystone Exam.

**Prerequisite:** 60% or better in Language Arts 9

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Course Number: <b>7131</b>	Title: <b>Honors English 10</b>	1 Credit
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Honors English 10 promotes advanced comprehension and written language skills through the study of the short story, drama, novel and non-fiction text with a focus of world literature. Logical thinking, oral communication skills, clear expression and independent study are essential tools. Writing instruction is designed to advance the students' critical and research writing skills, and to foster an appreciation of various literary forms. The reading and writing pace is accelerated and evaluative standards are high. Completion of summer work is a requirement of this course.

**Prerequisites:** All of the following: teacher recommendation and 87% in Honors English 9

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Course Number: <b>7140</b>	Title: <b>Academic English 11</b>	1 Credit
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Academic English 11 provides students with the speaking ability, writing proficiency, reading background, and study skills necessary for successful college work. Emphasis for these students will be on reading and writing assignments, which will prepare them for college-level work. Literature will concentrate on discussing the multi-level meanings of the readings and on the authors' intent and use of form. Writing will emphasize thesis and support papers, expository writing, and critical analysis.

**Prerequisite:** 60% in Academic English 10

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Course Number: **7141** Title: **AP Language and Composition** Grade Level: **11** 1 Credit

Advanced Placement Language and Composition provides students with an opportunity to read and analyze a broad and challenging range of fiction and non-fiction prose selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing, students develop their ability to work with language and text with a greater awareness of purpose, strategy, and rhetorical tactics, while strengthening their own composing abilities. Course readings feature expository, analytical, personal, and argumentative texts from a variety of authors and historical contexts. Students examine and work with essays, letters, speeches, images, and imaginative literature. Required American Literature exposure will also be covered. Students prepare for the AP English Language and Composition Exam and may be granted advanced placement, college credit, or both as a result of satisfactory performance on the exam. Completion of summer work is a requirement of this course.

**Prerequisites:** All of the following: Teacher recommendation and 87% cumulative in Honors English 10

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Course Number: **7150** Title: **Academic English 12** 1 Credit

Academic English 12 covers literature from the Anglo-Saxon Period through the Contemporary Period. Students will study a text's structure, style, theme and figurative language. They will write multi-paragraph essays in response to literature. Students will also acquire public speaking and technical writing skills that they will apply throughout the course.

**Prerequisite:** 60% in Academic English 11

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Course Number: **7151** Title: **AP Literature and Composition** Grade Level: **12** 1 Credit

Advanced Placement Literature and Composition engages students in the careful reading and critical analysis of literature. Through close reading of selected texts, the student should deepen his/her understanding of the ways writers use language to provide both meaning and pleasure for their readers. Students will consider a work's structure, style, and themes as well as elements of figurative language, imagery, symbolism, and tone. Writing expectations are at the mastery level with multi-paragraph compositions on works studied. Moreover, the reading corresponds to an approach to writing about literary works to understand and develop analytical papers along with annotation, free writing, and interpretation of language and structure. Students prepare for the AP Literature and Composition Exam and may be granted advanced placement, college credit, or both as a result of satisfactory performance on the exam. Completion of summer work is a requirement of this course.

**Prerequisites:** All of the following: teacher recommendation and 87% cumulative in Honors English 10

## **COMMUNICATION COURSES**

Course Number: **7170** Title: **Journalism** Grade Levels: **10, 11, 12** 1 Credit

Journalism will provide students with the opportunity to develop skills in reading, writing, critical thinking, researching, copyediting, and publishing various kinds of news writing in print and broadcast journalism. Students will understand the role, responsibility, and ethical issues affecting professional and scholastic journalists. The class work will provide a forum for students to express their opinions on relevant world problems. Activities involve computer and media production equipment. Although Journalism is an elective, students must accept responsibility for accurate, well-researched, objective writings, meet deadlines, perform and work on various group and production crews.

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Course Number: **7190**      Title: **Communications/Public Speaking**      Grade Level: **9**      ½ Credit

This course introduces the basics of public speaking. Students will learn to deliver formal oral presentations by: establishing a clear and concise focus or thesis; applying appropriate structures, content and language to present ideas that support the thesis; utilizing effective technology or media to reinforce the message; employing successful delivery techniques (volume, pace, eye contact, emphasis, gestures, enunciation), and monitoring audience response to adjust the delivery accordingly.

## **MATHEMATICS COURSES**

Course Number: **7215**      Title: **Algebra I**      Grade Level: **9**      1 Credit

This course is directly aligned with the Algebra I PA Core Standards for Mathematics. Algebra I begins the study of symbols as used in higher mathematics. These symbols, or unknowns, replace numbers and must be determined by solving equations. In addition, the following topics are taught: working with signed numbers, factoring, rational expressions, and linear equations and systems.

**Prerequisite:** Successful completion of Pre-Algebra

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Course Number: **7221A**      Title: **Accelerated Geometry**      Grade Level: **9**      1 Credit

This course is designed to teach students the geometric skills necessary to be successful in trigonometry and Algebra II course work. Emphasis will be placed on logical reasoning and proofs, congruent and right triangles, parallel lines and their properties, similar polygons, circles, area, perimeter and volume, transformations, elementary trigonometry, Pythagorean Theorem, slope and y-intercept, and different types of angles and their unique properties. Students will work independently, in pairs, and in cooperative learning groups.

**Prerequisite:** Successful completion of Accelerated Algebra I

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Course Number: **7216**      Title: **Accelerated Algebra II-9**      Grade Level: **9**      1 Credit

This advanced course is a continuation of Geometry and will prepare the student for Elementary Functions/Trigonometry or Honors Trig/Pre-Calculus. Topics of study will include solving equations and inequalities, solving absolute value equations and inequalities, linear functions and graphs, systems of linear equations and inequalities, rational expressions, factoring, irrational numbers, complex numbers, quadratic equations, polynomial functions, exponential and logarithmic functions, probability and statistics.

**Prerequisite:** Successful completion of Accelerated Geometry

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Course Number: **7221**      Title: **Geometry**      Grade Level: **10**      1 Credit

This course is designed to teach students the geometric skills necessary to be successful in trigonometry and Algebra II course work. Emphasis will be placed on logical reasoning and proofs, congruent and right triangles, parallel lines and their properties, similar polygons, circles, area, perimeter and volume, transformations, elementary trigonometry, Pythagorean Theorem, slope and y-intercept, and different types

of angles and their unique properties. Students will work independently, in pairs, and in cooperative learning groups.

**Prerequisite:** Successful completion of Algebra I

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Course Number: <b>7217</b>	Title: <b>Algebra II</b>	Grade Levels: <b>10, 11, 12</b>	1 Credit
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Although this course is a continuation of Algebra I and Geometry, Algebra II is an intensive course designed to set the groundwork for higher mathematics courses. Topics include: solving equations and inequalities, solving absolute value equations and inequalities, linear functions and graphs, systems of linear equations and inequalities, rational expressions, factoring, irrational numbers, complex numbers, quadratic equations, and problem solving in each topic area.

**Prerequisite:** Successful completion of Algebra I and Geometry

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Course Number: <b>7230*</b>	Title: <b>Elementary Functions/Trigonometry</b>	Grade Levels: <b>11, 12</b>	1 Credit
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This course is designed to instruct students in the fundamental understanding and application of elementary functions and trigonometry. Students will be instructed in the following themes: functions and their graphs, trigonometric functions, analytic trigonometry, applications of trigonometric functions, exponential and logarithmic functions, and analytic geometry.

**Prerequisite:** Successful completion of Algebra II

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Course Number: <b>7231*</b>	Title: <b>Honors Trigonometry/Pre-Calculus</b>	Grade Levels: <b>10, 11, 12</b>	1 Credit
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This advanced course will cover topics from both trigonometry and calculus including trigonometric functions and graphs of trig functions, radian measures, trigonometry identities, triangles, inverse functions and their equations, exponential and logarithmic equations, limits, rates of change, derivatives, integration and use of graphing calculators. This is an advanced course designed for those students who exhibited advanced understanding in the prerequisite course of Accelerated Algebra II.

**Prerequisite:** Successful completion of Accelerated Algebra II with a final grade of 85% or higher or teacher recommendation.

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Course Number: <b>7240*</b>	Title: <b>Statistics</b>	Grade Levels: <b>11, 12</b>	1 Credit
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This course focuses on the study of collecting, organizing, analyzing, and interpreting numerical information and data. Topics of study will include: discrete and normal probability distributions, probability, frequency distributions and their graphs, and the descriptive branch of statistics, including measures of central tendency, position, variation and data classification and experimental design. Students will interpret the meaning of results and focus on how results affect all aspects of their lives. Emphasis will be placed on analysis and evaluation of methods and data. Students will be expected to express opinions, solutions, and analyses in written and verbal formats.

**Prerequisite:** A 70% or higher in Elementary Functions/Trigonometry. Grade 12 students are permitted to enroll with a score of 70% or higher in Algebra II. Grade 11/12 students are permitted to enroll concurrently with Calculus or AP Calculus.

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Course Number: **7241\*** Title: **AP Statistics** Grade Levels: **11, 12** 1 Credit

Students in AP Statistics are exposed to four broad conceptual themes: exploring data and observing patterns and departures from patterns, planning a study and deciding what and how to measure, anticipating patterns and producing models using probability theory and simulation, statistical inferences and confirming models. Students will be instructed in a variety of topics ranging amongst these four conceptual themes. This course follows the strict guidelines in the College Board Publication of the Advanced Placement Course Description for preparation of the AP Statistics Advanced Placement examination.

**Prerequisite:** An 85% or higher in Elementary Function/Trigonometry or Honors Trig/Pre-Calc

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Course Number: **7250\*** Title: **Calculus** Grade Levels: **11, 12** 1 Credit

This course focuses on the study of four themes of differential calculus: limits, differentiation, applications of differentials, and definite integrals. Topics of study will include rates of change, limits, continuity, slopes of tangent lines, differentiability, velocity and other rates of change, derivatives of linear and nonlinear functions, implicit differentiation, extreme values of functions, related rates, and definite integrals. Students should have a strong background in the fundamentals of trigonometry and advanced algebra concepts. This course is advanced and requires higher-level thinking and reasoning skills on the part of students and expects students to maintain a heightened level of personal responsibility.

**Prerequisite:** A 70% or higher in Elementary Functions/Trigonometry or Honors Trig/Pre-Calc

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Course Number: **7251\*** Title: **AP Calculus AB** Grade Levels: **11, 12** 1 Credit

This course develops the fundamental topics of Calculus I and is designed to provide an intensive study of all advanced algebra, pre-calculus, and calculus topics with an emphasis on problem solving, real life applications, long-term lab activities, group work, and the use of graphing calculators. Topics covered include differentiation and integration of transcendental functions (including the exponential, the logarithmic, and the inverse trigonometric functions), methods of integration, conic section curves, exponential growth and decay, line-motion problems, slope fields and applications of the integral. The course follows the strict guidelines specified in the College Board Publication of the Advanced Placement Course Description for the preparation of the Calculus AB Advanced Placement examination.

**Prerequisite:** Final score of 85% in Calculus I or Honors Trig/Pre-Calculus

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Course Number: **7252\*** Title: **AP Calculus BC** Grade Levels: **11, 12** 1 Credit

This course is an extension of Calculus AB by further developing the fundamental topics introduced in Calculus AB. It is designed to offer a multi-representational approach to calculus, with concepts, results and problems being expressed graphically, numerically, analytically and verbally. Topics covered include all content taught in Calculus AB with the introduction of more advanced topics, including parametric, polar and vector functions, Euler's Method, L'Hopital's Rule, convergence of improper integrals and sequences and series. The course follows the strict guidelines specified in the College Board Publication of the Advanced Placement Course Description for the preparation of the Calculus BC Advanced Placement examination.

**Prerequisite:** Final score of 85% or higher in Calculus AB and teacher recommendation.

<b>SOCIAL STUDIES COURSES</b>
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Course Number: **7310** Title: **Integrated United States History I** Grade Level: **9** 1 Credit Integrated United States History I is designed to provide the student with an understanding of European exploration and colonization of the New World through the early development of the United States. The course will consider the global impact on the period as well as the effect on Pennsylvania at the time.

**Prerequisite:** Successful completion of Ancient Civilizations II

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Course Number: **7311** Title: **Integrated United States History II** Grade Level: **10** 1 Credit

Integrated U.S. History II is designed to provide the student with an understanding of development of the United States from the revolution of Jacksonian Democracy to the U.S. “making the world safe for democracy” in the first World War. Global impact on the period and the effect on Pennsylvania at the time will be addressed.

**Prerequisite:** Successful completion of Integrated United States History I

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Course Number: **7312** Title: **Integrated United States History III** Grade Level: **11** 1 Credit Integrated United States History III is designed to provide the student with an understanding of development of the United States into a world power beginning with the First World War and continuing into the present. The course will consider the global impact of this period as well as its effect on Pennsylvania.

**Prerequisite:** Successful completion of Integrated United States History II

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Course Number: **7313** Title: **AP United States History** Grade Levels: **11, 12** 1 Credit

AP U.S. History will provide the learner with analytical skills and factual knowledge necessary to understand the historical, political, and cultural aspects of the development of the United States. The course prepares the learner for intermediate and advanced collegiate courses by making demands equivalent to those made by a full-year introductory college course. Historical materials are assessed in order to draw conclusions necessary to present sound evaluations in oral and written forms. At the conclusion of the course, the learner is encouraged to take the AP U.S. History exam.

**Prerequisites:** Successful completion of Integrated United States History I and II with a final grade of 80% or higher. Successful completion of an English course the year prior to taking AP U.S. History with a final grade of 80% or higher.

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Course Number: **7330** Title: **Economics** Grade Level: **12** ½ Credit

Economics is a one-semester course that provides an understanding of major economic systems, examines economic decision making, compares basic features of different economic systems, and emphasizes individual participation through the understanding of scarcity, choice, cost, and the roles of labor and government.

**Prerequisite:** Successful completion of Integrated United States History III

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Course Number: **7330** Title: **Political Science** Grade Level: **12** ½ Credit

Political Science is a one-semester course designed to provide the student with an understanding of the American democratic system of government. The course includes the historical and philosophical origins of the government,

its Constitutional foundations, its basic institutions and their functions, and the ways in which citizens are able to participate in and exercise influence on the system.

**Prerequisite:** Successful completion of Integrated United States History III

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Course Number: **7350**      Title: **Psychology I**      Grade Levels: **11, 12**      ½ Credit

Psychology I is designed to introduce students to the basic principles of human psychology. Students will explore fundamental concepts related to behavior. Topics will include the development of Psychology as a discipline, the major historical and contemporary approaches to psychology, the principles of psychological research, biology and behavior, sensation and perception, the principles of learning, memory, thinking and language development and theories of motivation and emotion. In this course, students will apply psychological principles to their lives by maintaining a personal journal in class, conduct experiments, analyze data and draw conclusions about human behavior and actively participate in group role-playing activities and projects in class.

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Course Number: **7351**      Title: **Psychology II**      Grade Levels: **11, 12**      ½ Credit

Psychology II is designed to build on knowledge learned in Psychology I. Students will continue to explore fundamental concepts related to human behavior. Topics will include human development from infancy to old age, altered states of consciousness, theories of personality and personality testing, stress and mental health, sleep and dream studies, psychological disorders and therapies. In this course, students will apply psychological principles to their lives by maintaining a personal journal in class and actively participating in group role-playing activities and projects in class.

**Prerequisite:** Successful completion of Psychology I

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Course Number: **7360**      Title: **Sociology**      Grade Levels: **11, 12**      ½ Credit

Sociology is an introductory course designed to introduce the learner to the concept of human interaction. The student will explore the need for social interaction, societal formation, development of culture, social conformity and deviation, the evolution of social institutions, social problems, and social change.

**Prerequisite:** Successful completion of Integrated United States History II

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## **SCIENCE COURSES**

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Course Number: **7406**      Title: **Applied Science**      Grade Levels: **11, 12**      1 Credit

Applied Science will be required for all students who do not enroll in Chemistry or Physics in their junior year. This class will cover the PA Standards and Anchors focusing on Physics, Chemistry, and Earth Science. This course will prepare students to take the PSSA 11<sup>th</sup> Grade Science Assessment. It will emphasize the Process of Science throughout all three strands of study. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.

**Prerequisites:** Principles of Biology 9, Biology

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Course Number: **7410**      Title: **Principles of Biology**      Grade Level: **9**      1 Credit

Principles of Biology is a course where the students will explore the environment and ecology specific to Pennsylvania. Environmental topics include watersheds and wetlands, renewable and nonrenewable resources, environmental health, agriculture, pest management, threatened and endangered species and humans in the environment. Ecological topics include nutrient cycles, ecosystems, solid wastes, population ecology, succession, communities and human ecology. Principles of Biology is a required course for all ninth grade students unless enrolled in Environmental Biology 9. Principles of Biology is a lab-based course where students demonstrate understanding through projects and field investigations. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.

**Prerequisite:** Earth Science 8

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Course Number: **7412**      Title: **Biology**      Grade Levels: **10, 11, 12**      1 Credit

Biology is a course in the fundamental process of living things. Students will be introduced to biological themes and concepts. Students will have the opportunity to employ the various processes of science during instruction and laboratory activities and should be able to demonstrate their understanding of basic biological ideas. The course is designed to aid students in decisions about bio-technical and environmental issues, as well as provide an excellent starting point for those who are inclined to become nurses, doctors, and lab technicians affiliated with medical occupations. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards. Upon completion of this course, students will take the Biology Keystone Exam.

**Prerequisite:** Principles of Biology

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Course Number: **7413**      Title: **Environmental Biology 9**      Grade Level: **9**      1 Credit

Environmental Biology 9 is an advanced course which includes units of study from Biology (the study of living things) and Environmental Science the study of the interactions between organisms and their environment). Students will have the opportunity to employ the various processes of science and should be able to demonstrate their understanding of basic biological and ecological ideas. They will gain both laboratory and field experiences and will be required to demonstrate their ability to follow the scientific method to carry out an independent research project. Prior to the course, students will complete independent summer activities to prepare them for the course. These activities will be assigned by the instructor at the end of their eighth grade year. Students enrolled in this course are expected to take Honors Chemistry in their sophomore year, Physics in their junior year and an advanced science course in their junior and/or senior years. The course is planned according to the PA Academic Standards, the Common Core Standards and the National Standards.

**Prerequisites:** Final grades of 85% or higher in seventh and eighth grade science courses, final grades of 85% or higher in seventh and eighth grade math courses, and teacher recommendation.

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Course Number: **7414\***      Title: **Human Anatomy and Physiology**      Grade Levels: **11, 12**      1 Credit

Human Anatomy and Physiology is designed to explore the organ systems in the human body and relate the systems' structures (anatomy) to their functions (physiology). This course is geared towards junior and senior students interested in pursuing a career in medicine, nursing, physical therapy, or other health-related professions and biological science. Dissection of mammalian organs and extensive microscope work are included in the curriculum. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.



**Prerequisites:** Complete Biology and Principles of Biology and/or Environmental Biology 9, and Chemistry  
**Recommended:** Complete Physics

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Course Number: **7416\*** Title: **Advanced Placement Environmental Science** Grade Levels: **11, 12** 1 Credit

Advanced Placement Environmental Science is designed to be the equivalent of an introductory environmental science course taken during the first year of college. This course will prepare the student for the Advanced Placement Environmental Science exam and provide a solid foundation for students interested in studying environmental science, ecology, biology, medicine, chemistry, geology, political science, economics, sociology, or pre-law college. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. The course will focus on the real science behind environmental problems and issues. Laboratory and field studies are emphasized and the course includes a lab period two days per week.

**Prerequisite:** 80% or higher final grade in Biology/Environmental Biology and Chemistry/Honors Chemistry

**Recommended:** Complete Physics

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Course Number: **7415\*** Title: **Advanced Placement Biology** Grade Levels: **11, 12** 1 Credit

Advanced Placement Biology is a second year Biology course for college bound students and includes a lab period two days per week. The course of study models a college- level biology class. The students will study in depth the following topics: Biochemistry, Cell Biology, Heredity and Evolution, Plant and Animal Anatomy and Physiology, and Ecology. The course is academically oriented and requires a great deal of time and effort. This course will prepare the student for the AP Biology exam and to excel in college biology. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.

**Prerequisites:** Biology or Environmental Biology 9, Chemistry, and Physics (Prerequisite/Co-requisite)

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Course Number: **7422** Title: **Chemistry** Grade Levels: **10, 11** 1 Credit

Chemistry is an introductory course that is designed to familiarize the student with fundamental physical and chemical properties of elements and compounds. This course places importance on laboratory procedures and techniques. Students will explain processes that are observed in the laboratory through laboratory reports. Instructor demonstrations, lectures, and laboratory experiments support the theory of chemical reactions and chemical processes learned in the classroom. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.

**Prerequisites:** Algebra II or concurrent, Environmental Science 9, or Biology or Environmental Biology 9

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Course Number: **7423** Title: **Honors Chemistry** Grade Levels: **10, 11, 12** 1 Credit

Honors Chemistry is an introductory course designed for students who are particularly interested in the sciences and have a strong background in mathematics. Students planning to enter college in either a mathematic or

science-related major (such as medicine, engineering, pharmacy, physical therapy, etc.) are strongly encouraged to take this course. This course is fast paced and will require the student to work independently at times. Students will have the opportunity to utilize various processes of science and should be able to demonstrate basic chemical ideas. They will gain both laboratory and field experiences. Prior to this course, students will complete an independent summer activity that will be assigned by their instructor. Students enrolled in this course are expected to take Physics their junior year and an advanced science course in their senior year.

**Prerequisites:** Final grade of 85% or higher in eighth and ninth grade science courses and 85% or higher in Algebra II or higher level mathematics.

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Course Number: **7425\*** Title: **Advanced Placement Chemistry** Grade Levels: **11, 12** 1 Credit

The Advanced Placement Chemistry course is intended to meet the objectives of a general chemistry course on the college level including a lab period two days per week. Students in such a course should attain a depth of understanding of fundamentals and a competence in dealing with chemical problems that will enable them to undertake further work in chemistry or related fields with confidence. This course should contribute to the development of the students' ability to think clearly and to express their ideas, orally and in writing, with clarity and logic. The advanced placement course should be taken only after the successful completion of a course in high school chemistry with teacher recommendation. The students should have a strong background in mathematics. When applicable, students may take an advanced placement chemistry examination, at their own expense, in order to receive college recognition. The examination is administered through the College Entrance Examination Board. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.

**Prerequisites:** Completion of Principles of Biology , Biology or Environmental Biology 9, Chemistry, Physics or concurrent with Physics and teacher recommendation

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Course Number: **7432\*** Title: **Physics** Grade Levels: **10, 11, 12** 1 Credit

The Physics course is designed to give students first-hand experience in the field of mechanics, which includes describing motion, force laws, and conservation laws. Students will be required to perform laboratory experiments and analysis to derive equations and develop concepts integral to the classical mechanics. The course is planned according to the PA Academic Standards, the Common Core Standards and the curriculum framework published in "Atlas for Science Literacy" by the American Association for the Advancement of Science.

**Recommendation:** Successful completion of Chemistry and Algebra II.

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Course Number: **7434\*** Title: **Advanced Placement Physics I–Algebra Based** Grade Levels: **11, 12** 1 Credit

The AP Physics I course includes topics in both classical and modern physics. The course utilizes guided inquiry and student-centered learning to foster the development of critical thinking skills in each of the following five content areas: Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, and atomic and nuclear physics. A working knowledge of algebra and basic trigonometry is required for the course. The course is planned according to the PA Academic Standards, the Common Core Standards, and the National Standards.

**Recommendation:** Completion of Physics and Trigonometry with recommended grade of 80% or higher.

<b>BUSINESS COURSES</b>
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Course Number: **7510\*** Title: **Introduction to Computer Programming** Grade Levels: **10, 11, 12** ½ Credit  
Learning to “code” or program a computer is a skill that will continue to be in demand throughout our workforce. In this course students learn fundamental computer programming topics as they design and code using Python. Topics covered include algorithms, objects, methods, variables, decision structures, and looping structures.

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Course Number: **7520\*** Title: **Introduction to Business** Grade Levels: **9, 10, 11, 12** ½ Credit  
Introduction to Business is an exploratory course of multiple business units. Students will investigate and study entrepreneurship (how to start a business), accounting (recording and analyzing financial information), business law (foundation of law and business contracts), and marketing (the process of moving products from producer to consumer). Throughout the course, students will have the opportunity to actively participate in business simulations, interact with business owners, and develop skills necessary to become a successful employee.

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Course Number: **7523\***Title: **Accounting** Grade Levels: **10, 11, 12** ½ Credit  
Accounting is an essential aspect of every business institution and organization. As future workers, small business owners, and entrepreneurs, students who understand basic accounting principles will be able to manage their companies’ financial resources. As citizens, future parents, and investors, students will be better prepared to make the economic decisions that will impact their communities – such as passing a referendum to build new schools - and to make the financial decisions that will affect their own economic futures.

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Course Number: **7524\*** Title: **Marketing** Grade Levels: **10, 11, 12** ½ Credit  
Marketing education introduces students to the processes and functions involved in transferring business products or services to a consumer. In addition, taking marketing courses may inspire students to study marketing at a more advanced level, which can be a springboard for a challenging and lucrative career. As a major business function, marketing impacts the American economic system as well as the international economy. There are at least two major principles related to marketing that all students should understand:

- General marketing concepts are important to everyone since they impact individuals, business, and society.
- Even though marketing practices continue to change, the conceptual framework, which is built upon a consumer orientation, should not be noticeably altered.

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Course Number: **7525** Title: **Personal Finance** Grade Levels: **10, 11, 12** ½ Credit  
Personal Finance is a practical course designed to provide students with the knowledge and skills necessary for successful money management. Class activities provide opportunities to apply mathematic fundamentals to money management, banking services, tax obligations, insurance, identity theft, investment essentials, credit management, and much more. This practical course will develop your financial skills and improve your understanding of some key personal finance issues that affect people’s lives and the skills and knowledge needed to improve your own financial capability. Students engage in two personal finance simulations that tie all the financial elements together. Prepare for your financial future by learning to manage your money now!

<b>TECHNOLOGY EDUCATION COURSES</b>
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Course Number: **7544\*** Title: **CAD/CAM** Grade Levels: **10, 11, 12** ½ Credit  
Students will learn computer aided design (CAD), computer aided manufacturing (CAM), and g-code programming to toolpath and produce an assortment of individual automated-machining projects.

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Course Number: **7545\*** Title: **Engineering Technology** Grade Levels: **9, 10, 11, 12** ½ Credit  
Students will design, build, and test a functional remote controlled vehicle. The RC vehicle project expands upon previous transportation activities and requires the application of skills learned in Technology Systems. RC vehicles will be designed and assembled in CAD modeling software and produced using automated processing machinery, such as the laser engraver and 3D printer. This course is designed to develop problem solving, prototyping, and assembly skills that students will find useful in S.T.E.M related fields.

Prerequisite: Technology Systems with 70% or above

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Course Number: **7546\*** Title: **Engineering Design** Grade Levels: **9, 10, 11, 12** ½ Credit

Students will learn the fundamentals of engineering. They will utilize the design process to enhance problem solving skills. Students will work independently and collaboratively with peers to design hands-on solutions to a variety of design problems utilizing CAD modeling and technical drawings. Activities and open-ended design projects will help students develop documentation, communication, collaboration, and other professional skill sets. This course is designed for students aspiring to study engineering or related fields.

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Course Number: **7547\*** Title: **Technology Systems** Grade Levels: **9, 10, 11, 12** ½ Credit

Students will study the technical subsystems of the field of transportation to design, produce, test, and assess various transportation models to compete in classroom competitions. These models will utilize the Laser Engraver, 3D Printer, and other automated machines to build skill sets and solve technical problems.

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Course Number: **7550\*** Title: **Agile Robotics** Grade Levels: **10, 11, 12** 1 Credit

Students will actively participate as part of an engineering design team through the participation in BotsIQ. This course is designed for students aspiring to study computer science, electronics, and mechanical engineering.

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Course Number: **7531** Title: **Production I** Grade Levels: **9, 10, 11, 12** ½ Credit

Students will gain an understanding of the proper techniques, tools, and safety considerations necessary to design and produce products within a material processing laboratory. Students will use computer modeling software, CNC machining, measurement, and appropriate machinery to produce accurate product parts. A variety of wood projects will be finished and assembled into keepsakes that each student can take home.

## VIDEO PRODUCTION COURSES

Course Number: **7562\*** Title: **Video Production** Grade Levels: **9, 10, 11, 12** ½ Credit

Video production is a course that will serve both the students and the school community. Students will learn camera operation, including composition, point of view, in-camera editing and other related skills. Students in this course will produce the morning announcements and other video productions. This is a semester course.

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Course Number: **7563\*** Title: **Advanced Video Production** Grade Levels: **11, 12** 1 Credit

Course Number: **7563S\*** Title: **Advanced Video Production** Grade Levels: **11, 12** ½ Credit

Advanced video concentrates on Final Cut Pro editing software and advanced camera techniques. A longer video project is a major portion of the course.

**Prerequisite:** Video Production

## FAMILY AND CONSUMER SCIENCE COURSES

Course Number: **7571** Title: **Family & Consumer Science I** Grade Levels: **9,10,11,12** ½ Credit

This course provides an opportunity for the student to develop comprehensive living skills applicable to today's society. Classroom activities are varied, including lab experiences, individual projects, and computer application. Areas of focus include: basic kitchen safety and sanitation skills, measuring skills, baking, basics of hand sewing and some nutrition.

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Course Number: **7572** Title: **Family & Consumer Science II** Grade Levels: **10,11,12** ½ Credit

Students who successfully complete Family and Consumer Science I may elect this course to further develop their comprehensive living skills. More advanced lessons and lab experiences will be covered, and students will be permitted to complete projects according to their interests and abilities. Areas of focus include: Nutrition of grains, proteins, dairy, fruits and vegetables and how to prepare these foods.

**Prerequisite:** 70% or higher in Family and Consumer Science I

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Course Number: **7573\*** Title: **Family & Consumer Science III** Grade Levels: **11, 12** ½ Credit

Students who successfully complete Family and Consumer Science II may elect this course to further develop their comprehensive living skills. More advanced lessons and lab experiences will be covered, and students will be permitted to complete projects according to their interests and abilities. Areas of focus include: salads, soups, sauces, yeast breads, and entertaining aspects of food service.

**Prerequisite:** 70% or higher in Family and Consumer Science II

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Course Number: **7574\*** Title: **Child Development** Grade Levels: **10, 11, 12** ½ Credit

This course will offer exploratory learning experiences in child development theories including areas of physical development, intellectual development, emotional development, and social development of children from ages prenatal up to 8 years of age. Emphasis is given to the development of competencies related to the study of children, pregnancy and prenatal development, birth and the newborn, types of growth and development, stages of growth and development, rights and responsibilities of parents and children, needs of children, factors influencing the behavior of children, children with special needs, coping with crises, the effects of technology on child development, and careers related to the area of child development. Upon completion of

this course, the student should be prepared to care for and guide the development of a child through all stages of growth—within a family, as a child-care professional, or in other experiences with children. The course is planned according to the PA Academic Standards, and/or the Common Core Standards, and/or the National Standards. It is recommended (but not required) to take Public Speaking before taking this course.

## ART COURSES

Course Number: <b>7610A</b>	Title: <b>Two-Dimensional Art I</b>	Grade Levels: <b>9, 10, 11, 12</b> ½ Credit
Course Number: <b>7610B</b>	Title: <b>Two-Dimensional Art II</b>	Grade Levels: <b>9, 10, 11, 12</b> ½ Credit
Course Number: <b>7610C</b>	Title: <b>Two-Dimensional Art III</b>	Grade Levels: <b>10, 11, 12</b> ½ Credit
Course Number: <b>7610D</b>	Title: <b>Two-Dimensional Art IV</b>	Grade Levels: <b>10, 11, 12</b> ½ Credit
Course Number: <b>7610E</b>	Title: <b>Two-Dimensional Art V</b>	Grade Levels: <b>11, 12</b> ½ Credit
Course Number: <b>7610F</b>	Title: <b>Two-Dimensional Art VI</b>	Grade Levels: <b>11, 12</b> ½ Credit
Course Number: <b>7610G</b>	Title: <b>Two-Dimensional Art VII</b>	Grade Level: <b>12</b> ½ Credit
Course Number: <b>7610H</b>	Title: <b>Two-Dimensional Art VIII</b>	Grade Level: <b>12</b> ½ Credit

The eight-course two-dimensional art series encompasses instruction at increasing levels of artistry with two-dimensional artistic media, such as drawing and painting. Students will learn about the elements and principles of design and develop their skills when using different types of media. Students may progress through the course sequence as their interest continues and as scheduling permits. At higher levels of the course, students will be encouraged to work more independently and produce more individualized creative works.

Course Number: <b>7620A</b>	Title: <b>Three-Dimensional Art I-A</b>	Grade Levels: <b>9, 10, 11, 12</b> ½ Credit
Course Number: <b>7620B</b>	Title: <b>Three-Dimensional Art II-A</b>	Grade Levels: <b>10, 11, 12</b> ½ Credit
Course Number: <b>7620C</b>	Title: <b>Three-Dimensional Art III-A</b>	Grade Levels: <b>11, 12</b> ½ Credit
Course Number: <b>7620D</b>	Title: <b>Three-Dimensional Art IV-A</b>	Grade Level: <b>12</b> ½ Credit

**Fall Semester ONLY.** The eight-course three-dimensional art series encompasses instruction at increasing levels of artistry with three-dimensional artistic media, such as ceramics and metals. Students will learn about the elements and principles of design and develop their skills when using different types of media. Students may progress through the course sequence as their interest continues and as scheduling permits. At higher levels of the course, students will be encouraged to work more independently and produce more individualized creative works.

Course Number: <b>7621A</b>	Title: <b>Three-Dimensional Art I-B</b>	Grade Levels: <b>9, 10, 11, 12</b> ½ Credit
Course Number: <b>7621B</b>	Title: <b>Three-Dimensional Art II-B</b>	Grade Levels: <b>10, 11, 12</b> ½ Credit
Course Number: <b>7621C</b>	Title: <b>Three-Dimensional Art III-B</b>	Grade Levels: <b>11, 12</b> ½ Credit
Course Number: <b>7621D</b>	Title: <b>Three-Dimensional Art IV-B</b>	Grade Level: <b>12</b> ½ Credit

**Spring Semester ONLY.** This four-course three-dimensional art course will provide instruction and support in specific three-dimensional art media. Each course, offered once per year, will focus primarily on the creation of metal crafts, but may include projects in other three-dimensional media subject to instructor discretion.

Course Number: <b>7631*</b>	Title: <b>Photoshop</b>	Grade Level: <b>9,10,11,12</b>	½ Credit
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In this course, the students will have practical hands-on experience with Photoshop. The students will create a calendar project that uses the digital camera, color scanner, and the Internet to get images. They will be

introduced to the power of Adobe Photoshop and explore how the computer images are created, modified, and prepared for use in multimedia applications. This experience will be helpful for Senior Graduation presentations and post-secondary education in college or trade schools.

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Course Number: **7632\*** Title: **Advanced Photoshop** Grade Levels: **10, 11, 12** 1 Credit

Course Number: **7632S\*** Title: **Advanced Photoshop** Grade Levels: **10, 11, 12** ½ Credit A course for the student planning to continue advancing his/her control with 2-D media. Emphasis is on developing a visual portfolio reflecting a broad spectrum of media experiences that support the Pennsylvania Academic Standards for the Arts and Humanities. Students will refine abilities to control color, tone, and values on the surface while practicing a variety of artistic techniques used to create original artwork.

**Prerequisite:** 70% or better in Photoshop

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Course Number: **7640\*** Title: **Service Learning** Grade Level: **10, 11, 12** 1 Credit

Course Number: **7640S\*** Title: **Service Learning** Grade Level: **10, 11, 12** ½ Credit

This course is designed for students interested in a career in graphic arts. Advanced art students are taught how to use the VersaCamm system to produce various projects such as banners, signs, and other materials in accordance with administrative, staff, and/or community requests. Students will work independently demonstrating their knowledge of artistic blends in producing quality products for use in the public venue. Class size is limited.

**Prerequisite:** 85% or higher in an advanced art course and teacher recommendation

<b>MUSIC COURSES</b>
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Course Number: **7651** Title: **Choir 9-12** Grade Levels: **9,10,11,12** 1 Credit

Course Number: **7651S** Title: **Choir 9-12** Grade Levels: **9,10,11,12** ½ Credit

Senior High Choir provides students who enjoy singing the opportunity to come together as a group and sing a wide range of choral literature. Through singing, the student learns the fundamentals of music, better diction, phrasing, breath control, and how to better use the voice. Self-discipline, self-esteem, responsibility, leadership training, and improved citizenship and service are all desired outcomes of this course. After-school practices and performances are a vital and integral part of this course. Choir activities include a concert in the winter and spring, invitational performances around the Greater Pittsburgh area, festivals, and various school activities. Students have the opportunity to sing solos at performances and school activities. Outstanding students are able to participate in both the Pennsylvania Music Educators Senior High District and Region/State Choral Festivals at other high schools. **NOTE:** *This course may be taken in conjunction with Band 9-12. (Credit will be split between the two courses.)*

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Course Number: **7661** Title: **Band 9-12** Grade Levels: **9,10,11,12** 1 Credit

Course Number: **7661S** Title: **Band 9-12** Grade Levels: **9,10,11,12** ½ Credit

Band at this grade level is a continuation of the junior high band program. The course offers continuing instruction on a band instrument. Participation in the senior high program provides the opportunity for the student to develop musicianship, character, and citizenship. The Senior High Band performs in Winter and

Spring concerts and all Marching Band activities. Membership in the band requires attendance at summer rehearsals, band camp, and all Marching Band performances (football games, parades, festivals, concerts, and competitions). Students may also participate in additional instrumental groupings. A complete listing of performances and rehearsals is provided by the band instructor.

**NOTE:** *This course may be taken in conjunction with Choir 9-12. (Credit will be split between the two courses.)*

**Prerequisites:** Participation in the junior high music program or acceptance based upon an audition with the Director

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Course Number: **7662** Title: **Guitar I** Grade Levels: **9, 10, 11, 12** ½ Credit

**Fall Semester ONLY.** Guitar I is a music elective course. This ensemble meets daily during the fall semester. This course is designed for students with no previous guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar on a beginning level and will learn many of the different styles, skills, and techniques required to become a successful guitarist. Areas of concentration include: music theory, aural skills, correct posture, hand position, tablature reading, standard notation reading, and performing experiences.

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Course Number: **7663** Title: **Guitar II** Grade Levels: **9, 10, 11, 12** ½ Credit

**Spring Semester ONLY.** Guitar II is a music elective course and continuation of the skills mastered in Guitar I. This ensemble meets daily during the spring semester. Students will receive guidance and direction in solving problems related to playing the guitar on a beginning/intermediate level and will learn many of the different styles, skills, and techniques required to become a successful guitarist. Areas of concentration include: flat picking, singing songs, rhythmic patterns, chord study, finger picking styles, musical forms, improvisation, and performing experiences.

**Prerequisite:** Completion of Guitar I with no less than 70%

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Course Number: **7664** Title: **Appreciation of the A (ARTS) in STEAM** Grade Levels: **9, 10, 11, 12** 1 Credit

This course is designed to develop lifetime music and art appreciation skills. It will also enhance 21<sup>st</sup> Century soft skills of problem-solving, creative thinking, collaboration, and communication skills. STEAM concepts are strongly immersed in the course. This is a yearlong course exposing students to digital fabrication, animation, set design, robotic production, custom and make-up design process, mathematical lighting, Garageband skills, and 3-D product prototypes. The intent is to drive innovation, and spark imagination as students study various forms of music and art.

## **FOREIGN LANGUAGE COURSES**

Course Number: **7702** Title: **German I** Grade Levels: **9, 10, 11, 12** 1 Credit

German I introduces the four linguistic skills of listening, speaking, reading, and writing. Attention is focused on listening skills and language acquisition during the year. Many cultural aspects of German life are explored.

**Recommendation:** A 70% or higher in English



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Course Number: <b>7703</b>	Title: <b>German II</b>	Grade Levels: <b>10, 11, 12</b>	1 Credit
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German II continues the study of the four linguistic skills on a higher level. Emphasis is placed on an understanding of the spoken language and reading skills. Students begin more advanced writing and continue to explore cultural aspects.

**Prerequisite:** A 70% or higher in German I

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Course Number: <b>7704</b>	Title: <b>German III</b>	Grade Levels: <b>11, 12</b>	1 Credit
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German III is a continuation of the German II course with an equal emphasis on all of the language skills. Students continue to explore cultural aspects of German life.

**Prerequisite:** 70% or higher in German II

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Course Number: <b>7705</b>	Title: <b>German IV</b>	Grade Levels: <b>12</b>	1 Credit
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German IV is a continuation of the German III course with an emphasis on reading skills. Advanced grammatical concepts are emphasized. Students continue to explore cultural aspects of German life.

**Prerequisite:** 70% or higher in German III

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Course Number: <b>7712</b>	Title: <b>Spanish I</b>	Grade Levels: <b>9, 10, 11, 12</b>	1 Credit
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This first level of Spanish is based on listening, speaking, reading and writing skills. These skills are developed through oral and written exercises. Class evaluation is based on written and oral exams as well as classroom projects and participation. Students learn fundamental skills in Spanish that allow them to function in all-Spanish in the classroom. Topics such as basic introductions, school, and family are among the first units. Units contain a blend of vocabulary, grammar, and culture to help students to not only use, but to understand the culture behind simple structures in Spanish. It is hoped that students will develop an appreciation and basic functional use of the Spanish Language.

**Recommendation:** A 70% or higher in English

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Course Number: <b>7713</b>	Title: <b>Spanish II</b>	Grade Levels: <b>10, 11, 12</b>	1 Credit
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The second level of Spanish is an advanced extension of Spanish I basic skills. The present tense will be continued and expanded upon, and the past and future tenses will be added. Students will continue to receive units based on vocabulary, grammar, and culture that help them to understand and apply the language effectively.

**Prerequisite:** A 70% or higher in Spanish I

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Course Number: <b>7714</b>	Title: <b>Spanish III</b>	Grade Levels: <b>11, 12</b>	1 Credit
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The third level of Spanish is an in-depth continuation of Spanish I and II. All concepts learned thus far will be solidified in authentic contexts through materials such as stories, articles, songs, and videos. Classroom participation is emphasized as students will use their acquired skills to converse and write in all Spanish.

**Prerequisite:** A 70% or higher in Spanish II

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Course Number: **7715**      Title: **Spanish IV**      Grade Level: **12**      1 Credit

Language, listening, speaking, reading, and writing skills are sharpened in this course. Students will develop their writing skills aided by a deeper study of grammar and vocabulary. their communicative skills will excel through all-Spanish class discussions based in the various units that we cover in class. Units will dive deeper into Hispanic history and culture in authentic contexts.

**Prerequisite:** A 70% or higher in Spanish III

### **PHYSICAL EDUCATION AND HEALTH COURSES**

Course Number: **7800**      Title: **Physical Education**      Grade Levels: **9, 10, 11, 12** ½ Credit

Physical Education is designed to develop positive lifetime physical activity habits, maintain or increase physical fitness levels, provide individual wellness feedback, improve motor functioning, promote personal safety, develop an appreciation for sportsmanship from both a participant and spectator vantage point, and impart students with the tools necessary to lead healthy, active lifestyles in their years well after Springdale High School.

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Course Number: **7813**      Title: **Health 9**      Grade Level: **9** ½ Credit

Course Number: **7814**      Title: **Health 10**      Grade Level: **10** ½ Credit

Health Education is a science designed to provide a better understanding of one's self and the development of proper habits and attitudes toward healthful living. This awareness is made possible by the study of such credits as: physical activity habits, exercise physiology, personal hygiene, the structure and function of the body systems, nutrition, communicable diseases, human sexuality, mental health, cardiopulmonary resuscitation, drug education, first aid and safety, consumer education and safety.

### **EXPERIENTIAL LEARNING COURSE**

Course Number: **7918**      Title: **Peer Buddies**      Grade Levels: **10, 11, 12** ½ Credit

The primary intention of the course is to foster positive relationships between general education students and students with disabilities. This course is designed for students who may want to enter the field of education, experience career exploration and community application in regards to special education. The experience is hands on and will involve supporting students with disabilities with problem solving skills, life skills, and transition. Students accepted into the course must go through an interview process. In addition, the course instructor will provide instruction on supportive strategies, disability rights, advocacy, and awareness. Participants in this class will be required to participate in at least one activity out of the classroom per semester.

### **ONLINE COURSES**

In an effort to personalize a student's education or resolve schedule conflicts, online courses through the Dynamo Virtual Academy are available for students. Online courses will be dealt with on an individual basis and will be approved by the principal.

### **FORBES ROAD CAREER AND TECHNOLOGY CENTER PROGRAM**

Students considering technical training may take advantage of programs offered through Forbes Road. During their first year of studies at Forbes, students will be transported in the morning directly to Forbes for a three-hour period then return to Springdale High School for the remainder of their classes. Students in the second and third year of Forbes programs will report to Springdale High School for the beginning of the school day, be transported to Forbes for a three-hour block

of time, then return to the high school for the remainder of the school day. Administration will consider students' career goals, academic history, PSSA/Keystone scores and school attendance when deciding student eligibility for participation in a Forbes Road Program. Students completing one year's program at Forbes Road receive 3 elective credits for passing grades of 60% and above.

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Title: **Advanced Manufacturing I**

Course Number: **9535A**

Title: **Advanced Manufacturing II**

Course Number: **9535B**

Title: **Advanced Manufacturing III**

Course Number: **9535C**

Machine Tool Technology is a high paying field that requires both technical knowledge and hands-on training. You will learn to design and create metal objects that are useful in everyday life. Students will read blueprints, cut, shape and finish metal products on state-of-the-art manual and computer controlled machines. Student projects have included making: motorcycle parts, all-terrain vehicle parts, race car parts, machinist tools, tattoo pen frame, paintball marker barrels, chess sets, ornaments, name tags, gears and 15 pound combat robots. This program is accredited by NIMS (National Institute for Metalworking Skills).

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Title: **Advertising Design I**

Course Number: **9640A**

Title: **Advertising Design II**

Course Number: **9640B**

Title: **Advertising Design III**

Course Number: **9640C**

The field of advertising and commercial art requires people who possess a wide range of creative and artistic skills. Today's commercial artist must be familiar with many forms of production, illustrative techniques, computer graphics and photography. From simple line drawings to computer generated imaging, the students create art that requires them to apply technical theory to an advertising agency workplace. Students will apply their designs on state-of-the-art equipment including digital printers, laser engravers, vinyl cutters, a sublimation system and embroidery machines. This program is designed to allow students to bring together many areas of creative graphic design and production technologies.

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Title: **Automotive Technology I**

Course Number: **9580A**

Title: **Automotive Technology II**

Course Number: **9580B**

Title: **Automotive Technology III**

Course Number: **9580C**

Automotive Technology students will disassemble and rebuild engines, diagnose problems with the aid of a computer while having the opportunity to earn their PA State Inspection and Emissions Certification. The Automotive Technology program is National Automotive Technicians Education Foundation (NATEF) certified and meets strict industry standards.

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Title: **Building Construction Technology I**

Course Number: **9536A**

Title: **Building Construction Technology II**

Course Number: **9536B**

Title: **Building Construction Technology III**

Course Number: **9536C**

Building Construction Technology students gain technical knowledge as well as practical hands-on training in the trade which includes carpentry, plumbing, electrical, masonry and blueprint reading. Individuals learn to apply technical knowledge and skills in the maintenance and repair of residential, office, apartment, and other commercial buildings. Building Construction Technology is an ideal program for students who possess an inquisitive nature, enjoy a variety of varied tasks and like being physically active.

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Title: **Collision Repair Technology I**

Course Number: **9581A**

Title: **Collision Repair Technology II**

Course Number: **9581B**

Title: **Collision Repair Technology III**

Course Number: **9581C**

Collision Repair Technology gives you the skills needed to repair damage resulting from everyday vehicle collisions. Collision Repair Technicians, straighten bent bodies, remove dents, replace crumpled parts that cannot be repaired, fabricated new parts, and paint vehicles. You generally will work in a groups to complete the repairs, with direction from the instructor. You also have the ability to become an apprentice to assist experienced technician's at dealerships or family owned shops. Today's auto body technicians must be trained in the construction of the automobile body and frame. Automobile production uses materials and manufacturing techniques that demand that the auto body repair technician be competent in metalworking, welding, uni-body construction, surface preparation, High Volume Low Pressure (HVL) painting and accurate repair estimating. Students use safe and modern repair equipment in all phases of their training..

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Title: **Computer Networking Security I**

Course Number: **9507A**

Title: **Computer Networking Security II**

Course Number: **9507B**

Title: **Computer Networking Security III**

Course Number: **9507C**

This exciting technical course prepares students to design, maintain and secure today's Information Technology (IT) Systems which support every aspect of our global economy. Network Security Specialists acting as Ethical Hackers prevent data loss from cyber attacks, network intrusions and viruses, protecting valuable personal and corporate data. Students will use the latest tools to gain the practical experience needed to earn valuable professional certifications such as A+, Network + , CISCO and Security +. Network Security Specialists are in high demand in law enforcement, large corporations, and government agencies including the FBI, CIA and NSA.

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Title: **Cosmetology I**

Course Number: **9590A**

Title: **Cosmetology II**

Course Number: **9590B**

Title: **Cosmetology III**

Course Number: **9590C**

The Cosmetology Program builds a foundation of both academic and technical skills for a variety of career opportunities within the cosmetology industry. The course includes skills for performing procedures in areas such as: hair, skin, nail care, as well as salon procedures. Related instruction is presented as it applies to the skills being demonstrated. Upon completion of the required 1,250 hours of instruction, students will be eligible to take the Pennsylvania State Board cosmetology test to obtain a cosmetology license.

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Title: **Culinary Arts I**

Course Number: **9573A**

Title: **Culinary Arts II**

Course Number: **9573B**

Title: **Culinary Arts III**

Course Number: **9573C**

Culinary Arts is designed to offer instruction in the commercial restaurant industry including areas such as gourmet and fine dining skills, fast food operations, customer service, menu planning, cost-control along with other important aspects of food service. This highly appealing and interesting area stresses the technology of preparing and serving attractive nutritious foods. Students learn the complete food cycle including nutrition, ordering processes, menu design, equipment use and maintenance, sanitation, hygiene, food prep and presentation skills.

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Title: **Diesel Technology I**

Course Number: **9582A**

Title: **Diesel Technology II**

Course Number: **9582B**

Title: **Diesel Technology III**

Course Number: **9582C**

Diesel technology is part of virtually every aspect of today's transportation, construction, and manufacturing industries. Oil rigs, power plants, hydraulic systems, cargo ships, locomotives, construction vehicles, farming equipment, mining equipment and diesel trucks – most of these vehicles are powered by diesel engines. Students are trained in the repair and servicing of diesel-powered equipment. Emphasis is placed on the needs of local business and industry. Skills are enhanced by “hands-on” work involving actual maintenance of school owned vehicles and equipment. While the emphasis is on diesel engines, gasoline powered equipment and vehicles are also included as part of the program. Students have the opportunity to obtain state safety inspection licenses.

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Title: **Early Childhood Education I**

Course Number: **9574A**

Title: **Early Childhood Education II**

Course Number: **9574B**

Title: **Early Childhood Education III**

Course Number: **9574C**

Students in the Early Childhood Education program receive practical experience at local daycares in the community. Students study all the phases of child development: physical, social, emotional and intellectual. They learn about nutrition, guidance, and discipline. Students also study how to help children develop daily living skills, teach them the value of play, literature, music, art, math, and science in child development. Students present a series of learning and developmental activities in child care facilities practicing their creative teaching, child caring and management skills.

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Title: **Electrical Technology I**

Course Number: **9537A**

Title: **Electrical Technology II**

Course Number: **9537B**

Title: **Electrical Technology III**

Course Number: **9537C**

Students in this program are prepared for entry level electrical and electronic careers. Their hands-on applications include green technology in the program's state-of-the art electrical laboratory. Modern training equipment is utilized to prepare the students for careers in the emerging “high-tech” electrical field. Technical knowledge includes: installing residential, commercial and industrial systems, AC/DC motors, controls and electrical distribution panels. Through the program, students will have practical application and troubleshooting projects to apply the National Electrical Code. Students have the opportunity to obtain the following certifications; Residential Construction Academy Certification House Wiring, Residential Construction Academy Certification for Electrical Principles, Pittsburgh Builder's Association Certification, and OSHA 10 Hour Certification.

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Title: **Emergency Response Technology I**

Course Number: **9816A**

Title: **Emergency Response Technology II**

Course Number: **9816B**

Title: **Emergency Response Technology III**

Course Number: **9816C**

Emergency Response Services program is for students interested in pursuing a career, volunteer service, or post-secondary education in emergency medical service, law enforcement, fire or emergency management services. Students may also gain employment in areas of security and industrial safety. The program will challenge students with technical knowledge, as well as, hands-on training in a fully equipped on-site lab which includes a fire tower and a fire truck. The program of study includes high technical areas such as firefighting, emergency rescues, medical emergencies, patient transport, and law enforcement.

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Title: **Health Science Technology I**

Course Number: **9817A**

Title: **Health Science Technology II**

Course Number: **9817B**

Title: **Health Science Technology III**

Course Number: **9817C**

With today's fast growing medical profession, now is a great time to consider a career in health care. This program will assist you in getting a jump start in the financially rewarding health career or an edge in your post-secondary health field studies. Many students continue their education and become Pediatric Nurses, Surgical Technicians and Veterinary Technicians. Students can also prepare for careers in Physical Therapy, Occupational Therapy, Medical Office areas, along with many other medical specialties. This pre-nursing course gives you an opportunity to gain valuable hands-on experience and interact with patients under the supervision of a Registered Nurse.

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Title: **Heating, Ventilation & Air Conditioning (HVAC) I** Course Number: **9537A**

Title: **Heating, Ventilation & Air Conditioning (HVAC) II** Course Number: **9537B**

Title: **Heating, Ventilation & Air Conditioning (HVAC) III** Course Number: **9537C**

The US Bureau of Labor Statistics is projecting HVAC related jobs to increase a staggering 21% through 2022. These jobs need filled, and Forbes Road CTC can help you get started on this exciting career path. The HVAC program at Forbes Road CTC trains you in the technical services that are needed today and challenges the student to reach their highest level of academic knowledge and technical capabilities. Forbes Road CTC offers not only HVAC training but also assistance in career development and works with each graduate to help them find the right employment.

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Title: **Landscape Design I** Course Number: **9591A**

Title: **Landscape Design II** Course Number: **9591B**

Title: **Landscape Design III** Course Number: **9591C**

Landscape design is a profession that focuses on residential, commercial and industrial landscapes. The Landscape Design program immerses students in the history and theory of horticultural design, broadens their botanical knowledge, educates on plant terminology and nurtures their creativity while grounding them technically. This program is a specialized curriculum designed to prepare students to be desirable employees of architects, landscapers, nurseries, greenhouses, florists or various other landscape businesses. Both maintenance and establishment of lawns, as well as, landscaping homes and businesses are included in the curriculum. The principles of design are also included along with plant identification, budgeting, and cultivation procedures.

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Title: **Multimedia Design I** Course Number: **9560A**

Title: **Multimedia Design II** Course Number: **9560B**

Title: **Multimedia Design III** Course Number: **9560C**

This program gives students the freedom to be creative, imaginative, and inspired artistically to design presentations for entertainment, industrial and commercial use. Students will learn to use hardware such as digital and video cameras, and projectors in conjunction with the computer and the internet. The course content is designed to create animations, manipulate photographs, create pictures, presentations podcasts and web sites using state-of-the-art Illustrator software. Both platforms of personal computers and Apple Macs are taught. Finally, students complete a digital portfolio showcasing their "best works".

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Title: **Warehouse Management I** Course Number: **9592A**

Title: **Warehouse Management II** Course Number: **9592B**

Title: **Warehouse Management III** Course Number: **9592C**

This program will actively engage students in the process of receiving, storing, shipping, controlling and distributing products. Students will use conveyors, hand trucks, and carts to transport materials/supplies. Students will work in the Forbes Road CTC Distribution Center using technology to scan and track products. This program will expose students to careers related to the movement of materials and products.

<b>FORBES ROAD ADDITIONAL OPPORTUNITIES</b>
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**Academics**

Forbes Road CTC offers four academic courses for apprentice, credit, or remedial assistance in the areas of Mathematics, English, Social Studies, Science, Health and Physical Education. Students enrolled as an apprentice or credit student who do not have time scheduled at their home school or need to repeat a course may schedule these classes at Forbes.

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**Student Organizations**

Forbes Road CTC encourages students to become involved in national student organizations. Through these programs participants acquire quality education experiences in leadership, teamwork and citizenship.