

**Ferndale Area  
Junior-Senior  
High School**



**2024-2025  
Course Catalog**

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## **BUSINESS, COMPUTERS, & INFORMATION TECHNOLOGY**

<b>Computer Skills</b>		
Quarter	Required	
Grade 7		
<i>All seventh grade students will take this nine-week course throughout their 7th grade year. In this beginner class, students will learn Google Apps along with the basics of a computer, internet safety, keyboarding (typing) skills and email etiquette. These skills will assist students throughout their high school career and beyond.</i>		

<b>Learning Google Applications</b>		
Semester	Elective	0.5 credit
Grades 9-12	<b>Limit to 15 students</b>	
<i>This is a semester-long course that will focus on the skills needed to use Google Docs, Google Sheets, and Google Slides. The students will learn how to define the workspace as well as learn the skills and applications of these products. Students will complete projects and assignments and be able to utilize these programs independently.</i>		

<b>Animation with Adobe Animate</b>		
Semester	Elective	0.5 credit
Grades 10-12	<b>Limit to 12 students</b>	
<i>Are you interested in learning more about 2D animation? This project based class uses Adobe Animate to learn the basics of animation and bringing characters and scenes to life. Students will be introduced to the Animate interface, learn character design, storyboarding and will be able to animate their own projects by the end of the semester.</i>		

<b>Introduction to Computer Science</b>		
Semester	Elective	0.5 credit
Grades 9 - 10	<b>Limit to 15 students</b>	
<i>Students in this course will develop a basic understanding of computer science concepts, basic programming and problem solving. Through hands-on activities and interactive projects, we will cover topics such as principles, online programming, hardware/software and more.</i>		

## Cyber Security

Semester	Elective	0.5 credit
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Grades 11-12	<b>Limit to 15 students</b>	
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*This course introduces students to the basics of cyber security. Topics we will cover include malware and malicious ads, safe gaming practices and potential career paths. Students will also discover defensive hacking techniques.*

## Digital Arts

Semester	Elective	0.5 credit
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Grades 9-12	<b>Limit to 15 students</b>	
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*Learn about graphic design principles, edit photos and design illustrations using Adobe Photoshop and Adobe Illustrator. This class utilizes a hands-on approach, incorporating real world ideas into course projects. Designed for students with an interest in photo editing, color theory and illustration, this class gives students the opportunity to be digitally expressive.*

## Introduction to Marketing

Semester	Elective	0.5 credit
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Grades 10-12	<b>Limit to 15 students</b>	
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*This course explores concepts of marketing such as social media marketing, digital marketing, the marketing mix and promotions. Students will learn how to create, plan and market a product. Get ready to be innovative and creative using real-world examples and hands-on projects.*

## Public Speaking - A

Semester	Elective	0.5 credit
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<b>Grades 9-10 only</b>	<b>Limit to 15 students</b>	
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*Do you want to be more comfortable with speaking in public? This course will help ease you out of that anxiety. This course is an introduction to speech communication, and is to help prepare students to be comfortable in public speaking situations. Students will write speeches for Informative and Demonstrative speeches. We will also do in class activities that are fun and engaging.*

<b>Public Speaking - B</b>		
Semester	Elective	0.5 credit
<b>Grades 11-12 only</b>	<b>Limit to 15 students</b>	
<p><i>Do you want to be more comfortable with speaking in public? This course will help ease you out of that anxiety. This course is an introduction to speech communication, and is to help prepare students to be comfortable in public speaking situations. Students will write speeches for Informative, Demonstrative and Persuasive speeches. We will also do in class activities that are fun and engaging.</i></p>		

<b>The Hive TV</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>Students will anchor/report on the School Video Announcements Channel along with interviewing and other school video projects. Skills learned include but are not limited to camera skills and video editing. The use of Adobe Premiere Pro will be utilized.</i></p>		

<b>Web Page Design</b>		
Semester	Elective	0.5 credit
Grades 9-12	Limit to 15 students	
<p><i>In this course, students will learn the basic concepts associated with creating a web page. Students will be using Adobe Dreamweaver to create the web pages. Students will complete projects in order to create multiple comprehensive web sites, in which each page includes the skills learned throughout the course. This is a good introductory semester course for any student who is interested in learning some basic HTML and the aesthetics behind the creation of a website.</i></p>		

# ENGLISH

<b>English 7</b>		
Full Year	Required	
Grade 7		
<p><i>This course is designed to help students understand both the origins of the English language as well as stressing grammar, correct usage, and the mechanics of English. Students will integrate these language skills into the writing process by producing various writing samples including well-constructed sentences, effective paragraphs, and short essays. In addition, students will produce written works of various genres as outlined by the Pennsylvania Academic Standards. Students will also read and analyze at least one longer work of fiction. Students will take the Grade 7 ELA PSSA in the spring.</i></p>		

<b>Advanced English 7</b>		
Full Year	Teacher Recommendation	
Grade 7		Prerequisite: Advanced on elementary ELA PSSAs
<p><i>This course is designed to take an advanced approach to developing proficient communication skills through critical reading, writing, speaking, and listening, with an emphasis on all aspects of writing. Students will read, respond, analyze, and interpret a variety of literature, including, but not limited to, works of fiction, nonfiction, drama, and poetry. Students will demonstrate their in-depth comprehension and analytical skills through a variety of written genres and oral presentations. This course will help prepare students for the more rigorous literature and writing required of students seeking placement in advanced college preparatory classes. It will aid in the development of creative and critical thinking, problem-solving skills, and academic responsibility and initiative. Students will take the Grade 7 ELA PSSA in the spring.</i></p>		



<b>Reading 7</b>		
Full Year	Required	
Grade 7		
<p><i>The seventh-grade reading course is designed to introduce and reinforce vocabulary and comprehension skills. The skills presented are universal and apply in varying degrees to all content area reading materials. Some major areas covered include: Identifying and applying meaning of vocabulary and word recognition skills (i.e. multiple-meaning words, synonyms, antonyms, using context clues, and affixes). Students will read to understand fiction and non-fiction texts appropriate to grade level. Some major areas include: making inferences, drawing conclusions, comparing and contrasting, distinguishing between fact and opinion, identifying main ideas, facts and details, author's approach, predicting outcomes, summarizing, and critical thinking skills. Students are exposed to a wide variety of high-interest reading materials, tapes and movies to encourage a love of reading and life-long learning. Students will take the Grade 7 ELA PSSA in the spring.</i></p>		

<b>Advanced Reading 7</b>		
Full Year	Teacher Recommendation	
Grade 7		Prerequisite: Advanced on elementary ELA PSSAs
<p><i>This course is designed to take an advanced approach while reinforcing vocabulary and comprehension skills. Some major areas covered include: Identifying and applying meaning of vocabulary and word recognition skills (i.e., multiple-meaning words, synonyms, antonyms, using context clues, and affixes). Students will read various literary genres like fiction, poetry, non-fiction, and historical fiction both independently and in class. Students will be exposed to advanced literature that will help them make connections to the world around them both in real life and in the classroom setting. This course will challenge students to think creatively and make real-world connections through the upper-level works that will be discussed in class. Students are exposed to a wide variety of high-interest reading materials, tapes and movies to encourage a love of reading and life-long learning. This course will help prepare students for more challenging works of literature which will serve as a foundation for upper-level courses at the high school and college level. It will aid in the development of creative and critical thinking, problem-solving skills, and academic responsibility and initiative. Students will take the Grade 7 ELA PSSA in the spring.</i></p>		

<b>English 8</b>		
Full Year	Required	
Grade 8		
<p><i>This course is designed to help students understand grammar, correct usage, and the mechanics of the English language which will build on the previous year's skills. Students will then integrate these skills into the writing process by producing various writing samples including well-constructed sentences, effective paragraphs, and short essays. In addition, students will produce written works of various genres as outlined by the Pennsylvania Academic Standards. Students will also read and analyze at least one longer work of fiction. Students will take the Grade 8 ELA PSSA in the spring.</i></p>		

<b>Advanced English 8</b>		
Full Year	Teacher Recommendation	
Grade 8		Prerequisite: English 7 grade of 93% or Advanced English 7 grade of 88% and Advanced on ELA 7 PSSA
<p><i>This course is designed to take an advanced approach to developing proficient communication skills through critical reading, writing, speaking, and listening, with an emphasis on all aspects of writing. Students will read, respond, analyze, and interpret a variety of literature, including, but not limited to, works of fiction, nonfiction, drama, and poetry. Students will demonstrate their in-depth comprehension and analytical skills through a variety of written genres and oral presentations. This course will help prepare students for the more rigorous literature and writing required of students seeking placement in advanced college preparatory classes. It will aid in the development of creative and critical thinking, problem-solving skills, and academic responsibility and initiative. Students will take the Grade 8 ELA PSSA in the spring.</i></p>		

<b>Reading 8</b>		
Full Year	Required	
Grade 8		
<p><i>The eighth-grade reading course is designed to introduce and reinforce vocabulary and comprehension skills. The skills presented are universal and apply in varying degrees to all content area reading materials. Some major areas covered include: Identifying and applying meaning of vocabulary and word recognition skills (i.e., multiple-meaning words, synonyms, antonyms, using context clues, and affixes). Students will read to understand fiction and non-fiction texts appropriate to grade level. Some major areas include: making inferences, drawing conclusions, comparing and contrasting, distinguishing between fact and opinion, identifying main ideas, facts and details, author's approach, predicting outcomes, summarizing, and critical thinking skills. Students are exposed to a wide variety of high-interest reading materials, tapes and movies to encourage a love of reading and life-long learning. Students will take the Grade 8 ELA PSSA in the spring.</i></p>		

<b>Advanced Reading 8</b>		
Full Year	Teacher Recommendation	
Grade 8		Prerequisite: Reading 7 grade of 93% or Advanced Reading 7 grade of 88% and Advanced on ELA 7 PSSA
<p><i>This course is designed to take an advanced approach while reinforcing vocabulary and comprehension skills. Some major areas covered include: Identifying and applying meaning of vocabulary and word recognition skills (i.e., multiple-meaning words, synonyms, antonyms, using context clues, and affixes). Students will read various literary genres like fiction, poetry, non-fiction, and historical fiction both independently and in class. Students will be exposed to advanced literature that will help them make connections to the world around them both in real life and in the classroom setting. This course will challenge students to think creatively and make real-world connections through the upper-level works that will be discussed in class. Students are exposed to a wide variety of high-interest reading materials, tapes and movies to encourage a love of reading and life-long learning. This course will help prepare students for more challenging works of literature which will serve as a foundation for upper-level courses at the high school and college level. It will aid in the development of creative and critical thinking, problem-solving skills, and academic responsibility and initiative. Students will take the Grade 8 ELA PSSA in the spring.</i></p>		

<b>English 9</b>		
Full Year	Required	1 credit
Grade 9		
<p><i>English 9 builds upon the skills learned in English 8. Students will study all aspects of the language arts – reading, writing, speaking, and listening—as outlined in the Pennsylvania State Standards. Effective composition writing is practiced. Literature study will include reading and discussion of both fiction and nonfiction and will feature selected short stories, articles, drama, and poetry. Students will begin the process of preparing for the Pennsylvania Keystone Exam for Literature, which will be taken upon the completion of English 10.</i></p>		

<b>**Honors English 9</b>		
Full Year	Teacher Recommendation	1 credit
Grade 9	Weighted Course	Prerequisites: English 8 grade of 93% or Advanced English 8 grade of 88% and Advanced on ELA 8 PSSA
<p><i>Honors English 9 builds upon the skills learned in Honors English 8. Students will study all aspects of the language arts – reading, writing, speaking, and listening— as outlined in the Pennsylvania State Standards. Effective composition and research writing is practiced. Literature study will include reading and discussion of both fiction and nonfiction and will feature selected short stories, articles, drama, poetry, and novels. Students will begin the process of preparing for the Pennsylvania Keystone Exam for Literature, which will be taken upon the completion of English 10. This course will help prepare students for the more rigorous literature and writing required of students seeking placement in AP courses. It will aid in the development of creative and critical thinking, problem-solving skills, and academic responsibility and initiative. This course will exceed content at a fast pace and will require independent study and completion of assignments regularly.</i></p>		

<b>English 10</b>		
Full Year	Required	1 credit
Grade 10		
<p><i>English 10 builds upon the skills developed in English 9. Students will study all aspects of the language arts – reading, writing, speaking, and listening—as outlined in the Pennsylvania State Standards. Students will practice and refine these skills through a variety of activities, assignments, and projects. Effective composition writing is practiced and refined. Literary forms and their characteristics are studied. These include both fiction and nonfiction selections, poetry, drama, and novels. At the end of the course, students will take the Pennsylvania Keystone Exam for Literature.</i></p>		

<b>**Honors English 10</b>		
Full Year	Teacher Recommendation	1 credit
Grade 10	Weighted Course	Prerequisites: English 9 grade of 93% or Honors English 9 grade of 88%
<p><i>Honors English 10 builds upon the skills developed in Honors English 9. Students will study all aspects of the language arts – reading, writing, speaking, and listening—as outlined in the Pennsylvania State Standards. Students will practice and refine these skills through a variety of activities, assignments, and projects. Advanced composition and research writing are practiced and refined. Effective public speaking is also refined. Literary forms and their characteristics are studied. These include both fiction and non-fiction selections, poetry, drama, and novels. At the end of the course, students will take the Pennsylvania Keystone Exam for Literature. This course will help prepare students for the more rigorous literature and writing required of students seeking placement in the AP courses. It will aid in the development of creative and critical thinking, problem-solving skills, and academic responsibility and initiative. This course will exceed content at a fast pace and will require independent study and completion of assignments regularly.</i></p>		

<b>English 11</b>		
Full Year	Required	1 credit
Grade 11		
<p><i>English 11 is designed to give students an opportunity to practice and develop their language arts skills, while focusing on the areas of comprehension and writing as well as to introduce students to different genres of literature. Course content is determined by the unique and individual needs of the students enrolled in the class.</i></p>		

<b>**Honors English 11</b>		
Full Year	Teacher Recommendation	1 credit
Grade 11	Weighted Course	Prerequisite: English 10 grade of 93% or Honors English 10 grade of 88%
<p><i>Students in Honors English 11 will also study American authors, with the first semester focusing on literature from the Puritan period to Romanticism and the second semester focusing primarily on three 20th century novelists (Betty Smith, John Steinbeck, and F. Scott Fitzgerald). These students will strive to find deeper meaning in the literature by studying the authors and the historical period in which they lived and by making thematic connections between texts. Because this course is designed for those who are college-bound, students will be expected to read independently each night, complete research responsibly, and write formally. To strengthen their written expression, students will also be exposed to usage and wordiness rules and grammar and punctuation rules as necessary.</i></p>		

<b>English 12</b>		
Full Year	Required	1 credit
Grade 12		
<p><i>English 12 will provide students with the opportunity to strengthen their reading, writing, speaking, and listening skills. Throughout the first semester students will review basic grammar, punctuation and usage rules and work to strengthen their sentence structure and paragraph form. Students will also be expected to read and respond to high-interest literature, both fiction and nonfiction. The class will require students to complete some reading outside the classroom; however, class time will also be provided so that students can listen to selections and seek assistance when necessary. At times students will be required to complete teacher-guided research assignments that are connected to the literature they are reading.</i></p>		

<b>**Honors English 12</b>		
Full Year	Teacher Recommendation	1 credit
Grade 12	Weighted Course	Prerequisite: English 11 grade of 93% or Honors English 11 grade of 88%
<p>Honors English 12 is designed for those who are college-bound. It involves literature study and is thematic by semester, with the first semester focusing on Holocaust literature, both fiction and nonfiction, and the second semester focusing on British literature (Anglo-Saxon through Renaissance). Throughout the year various forms of writing are also stressed, including the informative research paper, personal reactions to literature, and literary criticisms. In addition to the increasingly complex literature study, various assignments are given to help the students fine tune their writing skills and develop their own style and voice.</p>		

<b>**AP English Language &amp; Composition</b>		
Full Year	Teacher Recommendation	1.2 credits
Grades 11	Weighted Course	Prerequisite: Honors English 10
<p><i>This course is only offered during odd graduation years. <b><u>Satisfactory completion of a summer assignment is required and due on the first day of school for this course.</u></b></i></p> <p><i>Prerequisite: A final average of 88% or higher in Honors English, as well as teacher recommendation. If a student would like to take AP English Language &amp; Composition but is not currently on the Honors/AP track, he/she must have a 95% or higher, as well as teacher recommendation. Satisfactory completion of a summer assignment is required and due on the first day of school for this course.</i></p> <p><i>The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.</i></p> <p><i>Students should be prepared for reading and/or writing homework virtually every night.</i></p>		

<b>**AP English Literature &amp; Composition</b>		
Full Year	Teacher Recommendation	1.2 credits
Grade 12	Weighted Course	Prerequisite: AP English Language & Composition grade of 80% or English 11 grade of 95%

*This course is only offered during even graduation years. **Satisfactory completion of a summer assignment is required and due on the first day of school for this course.***

*The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Students who sign up to take the AP Exam but decide not to take it once it is ordered will be required to reimburse the district for the test. This may include a penalty fee if the student decides not to take the exam once ordered.*

<b>College Grammar</b>		
Semester	Elective	0.5 credit
Grades 11-12		

*The goal of this course is to ensure that students have control of their writing by understanding and adhering to the rules that govern writing. In this class, students will learn to strengthen their sentences by learning to vary their sentence patterns. While learning to subordinate, they will also learn to punctuate the sentences correctly and avoid the errors frowned upon in college writing: dangling and misplaced modifiers, faulty parallelism, unnecessary use of passive voice, and generally used pronouns. Students will use the college textbook English Fundamentals and its corresponding website.*



<b>Creative Writing I</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>Creative Writing is intended to help writers achieve a more advanced level of composition writing skills. Students will explore various methods of brainstorming and focus on the fundamentals of story building to improve their skills in focus, content, organization, style, and mechanics. Particular emphasis will be placed on improving content and style. Much of the class will feature a writing workshop format while taking a more creative approach. Students will write both fiction and nonfiction pieces, as well as using technology to produce and publish their work. Students interested in writing as a profession or students who enjoy writing should schedule this course.</i></p>		

<b>Creative Writing II</b>		
Semester	Elective	0.5 credit
Grades 9-12		Prerequisite: Creative Writing I
<p><i>Creative Writing II is an in-depth writing course that gives students the opportunity to further develop their talent. In a collaborative workshop structure, students will explore several types of genres as they work through the writing process and will be expected to identify their strengths and weaknesses as a writer. Students will analyze texts of published authors and use their speaking and listening skills to share their writing.</i></p>		

## **FAMILY AND CONSUMER SCIENCES**

<b>Family &amp; Consumer Sciences</b>		
Quarter	Required	
Grade 7		
<p><i>This hands-on course introduces students to the Family and Consumer Sciences curriculum. The areas of concentration include Financial and Resource Management, Balancing Family, Work &amp; Community Resources, Food Science &amp; Nutrition, and Child Development.</i></p>		

<b>Basic Foods &amp; Nutrition</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>In this course, students will build a solid foundation in Nutrition while developing fundamental skills for everyday life. Students will explore scientific and technical developments that enhance our food supply, identify common causes and preventions of food borne illnesses, analyze daily nutritional requirements, and research eating disorders.</i></p>		

<b>Advanced Foods</b>		
Semester	Elective	0.5 credit
Grades 9-12		Prerequisite: Basic Foods & Nutrition
<p><i>In this course, students will build on the foundations learned in Basic Foods, while creating interesting recipes from around the globe. Students will analyze current and future food trends, evaluate government agencies that safeguard food production &amp; preparation and consider scientific principles used in food processing, preparation and packaging.</i></p>		

<b>Baking</b>		
Semester	Elective	0.5 credit
Grades 9-12		Prerequisite: Basic Foods & Nutrition
<p>In this course, students will learn classic methods and techniques that are used in the preparation of finished baked goods, gain an understanding of the various mixing methods and the effects on batters and doughs. Students will accurately measure ingredients, understand complex recipe techniques and conversions, and the art of presentation.</p>		

## Child Development

Semester	Elective	0.5 credit
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Grades 9-12		
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*In this course, students will analyze the physical, intellectual, emotional & social development of children from conception to age 3. In addition, students will examine the impact of multiple child development theories, health & safety implications, best learning environments and practices and quality children's literature. Students will participate in the Baby Think it Over and The Empathy Belly simulations.*

## Independent Living

Semester	Required	0.5 credit
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Grades 10-12		
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*While relating careers to individual interests, aptitudes and abilities students will explore careers and career paths. They will apply research skills developing a career portfolio and scrutinizing their personal career goals and preparation opportunities. Students will read and reflect on *The 7 Habits of Highly Effective Teens* by Sean Covey and evaluate their personal attitudes and work habits, while establishing positive practices in their lives. The students will develop basic sewing skills, how to read a rental agreement and other tasks to prepare them for life outside of high school.*

## Interior Design

Semester	Elective	0.5 credit
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Grades 9-12		
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*This is an introductory course in Interior Design. Students will be introduced to and apply several basic components of Interior Design including elements and principles of interior design, architectural styles, furniture styles, and arrangement. The creation of floor plans and design boards will be emphasized.*

# **FINE ARTS**

<b>Art 7</b>		
Quarter	Required	
Grade 7		
<p><i>In this course, students will learn the classic methods and techniques that are used in the preparation of finished baked goods, gain an understanding of the various mixing methods and the effects on batters and doughs. Students will accurately measure ingredients, understand complex recipe techniques and conversions, and the art of presentation. This class is an introduction course to the elements of art. Explore different mediums including paint, clay, and drawing. Students create and utilize sketchbooks for designing and brainstorming projects.</i></p>		

<b>Art Explorations</b>		
Semester	Elective	0.5 credit
Grades 9-12	Limit to 18 students	
<p><i>This is an art class designed for students who want to do a little bit of everything in art. It will allow students to explore 2D and 3D art if they are unsure which they prefer or if they just want to try something new. Students of all levels are welcome to join. We will explore fundamental drawing, painting, and sculpture techniques. Students will also learn about multiple artists and art movements throughout their time in this course.</i></p>		

<b>3-D Art I</b>		
Semester	Elective	0.5 credit
Grades 9-12	Limit to 18 students	Prerequisite: Art Explorations or teacher recommendation
<p><i>This course is designed for students who want to try something other than drawing and painting. Students will use 3D art materials to help them create in a new way. We will explore multiple principles and elements of art within each project.</i></p>		

### 3-D Art II

Semester	Elective	0.5 credit
Grades 9-12	Limit to 18 students	Prerequisites: Art Explorations, 3D Art I

*This course will provide a hands-on, project based learning environment for students interested in challenging their (3d)artistic skills. We will experiment with a wide range of materials and techniques from ceramics/clay sculpting and glazing to mixed media approaches. Ultimately this course will foster a deep understanding of the intricate world of 3 dimensional art. Completion of Art explorations and 3D art 1 are required to take this course.*

### Drawing & Painting I

Semester	Elective	0.5 credit
Grades 9-12	Limit to 18 students	Prerequisite: Art Explorations or teacher recommendation

*This course is designed for students who only like to work with 2D mediums to create art. This class will be designed for students to learn multiple drawing and painting skills as we focus on the elements and principles of art. It is recommended that students take art explorations first to build the skill set for more complex projects, but it is not required.*

### Drawing & Painting II (Art Media)

Semester	Elective	0.5 credit
Grades 9-12	Limit to 18 students	Prerequisite: Art Explorations, Drawing & Painting I

*This course is designed for passionate students dedicated to improving their 2d art skills. Drawing techniques/skills and creative problem solving will be challenged in this project based environment. Students will experiment with traditional and digital art tools and materials, while learning illustration, character design, screen printing, graphic design and some basic digital sculpting skills. The ultimate goal of this course is to help students begin to develop a portfolio that can help them turn their artistic hobbies/interests into career opportunities. Completing intro to art (art explorations) and drawing and painting 1 are required to enroll in this course.*

<b>Independent Art</b>		
Semester	Teacher Recommendation	0.5 credit
Grades 11-12		Prerequisite: Drawing & Painting 1 AND 3D Art 1
<p><i>This course is for juniors and seniors that have completed at least Drawing &amp; Painting 1 and 3D art I. This course is going to be an independent art class to prepare students for art making after high school. Students do not have to plan to pursue a career in the art field to be in this course, but they will learn about different career paths along with building a professional art portfolio. Students will be given prompts and will have the leisure to choose art mediums they want to use for each project.</i></p>		

## **FOREIGN LANGUAGES**

<b>Foreign Language Expo</b>		
Quarter	Required	
Grade 8		
<p><i>This exploratory class is designed to help you ease into second-language learning. When you begin to study French or Spanish in 9th grade, you will have the basic skills needed to be successful. This course will run for nine weeks and places more emphasis on learning vocabulary in context as well as culture and less emphasis on grammar.</i></p>		

<b>French I</b>		
Full Year	Elective	1 credit
Grades 9-12		
<p><i>The objective of French I is for the student to achieve basic proficiency in the four skills of listening, speaking, reading, and writing. Language is presented within context to the contemporary French-speaking world and its culture. Basic grammar skills and vocabulary are taught. Videos, depicting the youth of France, and audio CDs of native speakers are used. Conversation and instruction in French will increase as the year progresses.</i></p>		

<b>French II</b>		
Full Year	Elective	1 credit
Grades 10-12		Prerequisite: French I grade of 70%
<p><i>French II continues the work started in French I. Vocabulary is greatly expanded, and more difficult grammar structures are introduced. The video and audio programs support the text content. Games, written/oral activities, and dialogues are used for practice. French is used for conversation and instruction as much as possible.</i></p>		

<b>French III</b>		
Full Year	Elective	1 credit
Grades 11-12		Prerequisite: French II grade of 80% and recommended English 10 grade of 80%
<p><i>French III is an advanced course which increases the communication skills of the student and builds the ease and confidence with which he or she uses French for self-expression. French novels and short stories are sometimes used to introduce more complex grammatical structures. Conversational situations and grammatical points will be based on previous years and build on past knowledge.</i></p>		

<b>French IV</b>		
Full Year	Elective	1 credit
Grade 12	Weighted Course	Prerequisite: French III grade of 80% and recommended English 11 grade of 80%
<p><i>French IV is an advanced course which increases the communication skills of the student and builds the ease and confidence with which he or she uses French for self-expression. French novels and short stories are sometimes used to introduce more complex grammatical structures. More cultural materials and grammar are provided throughout the year. Conversational situations and grammatical points will be based on previous years and build on past knowledge. Students who wish to develop further oral competence may select this advanced course.</i></p>		

<b>Spanish I</b>		
Full Year	Elective	1 credit
Grades 9-12		
<p><i>The objective of Spanish I is for the student to achieve basic proficiency in the four skills of listening, speaking, reading, and writing. Language is presented within the context of the contemporary Spanish-speaking world and its culture, which includes Spain and Latin America. Basic grammar skills and vocabulary are taught. Authentic, current videos and audio of native Spanish-speakers are integrated into the course. Conversation and instruction in Spanish will increase as the year progresses.</i></p>		

<b>Spanish II</b>		
Full Year	Elective	1 credit
Grades 10-12		Prerequisite: Spanish I Grade of 70%
<p><i>Spanish II continues the progress made by the student in the first year of language study. Grammatical structures advance and vocabulary expands substantially. Emphasis is placed on speaking and reading in addition to the student learning to write more proficiently in the language. A variety of apps, websites, interpersonal activities and games are used to acquire the language. Spanish is used for conversation and instruction when possible.</i></p>		

<b>Spanish III</b>		
Full Year	Elective	1 credit
Grades 11-12		Prerequisite: Spanish II grade of 80% and recommended English 10 grade of 80%
<p><i>Spanish III is an advanced course for students who wish to develop further communicative competence. Students are taught more advanced grammatical structures and verb tenses and given more opportunities to improve their writing and reading skills. Students in level III also read, interpret and retell short stories in Spanish.</i></p>		



<b>Spanish IV</b>		
Full Year	Elective	1 credit
Grade 12	Weighted Course	Prerequisite: Spanish III grade of 80% and recommended English 11 grade of 80%
<p><i>Spanish IV is for those who have completed level III with a B or higher and who wish to develop further oral, written and comprehension competence. In this course, students continue to learn advanced grammar concepts, a wider scope of vocabulary and are provided with more opportunities to interpret authentic spoken language. At this level, students read and interpret authentic Latin American literature.</i></p>		

## **HEALTH, PHYSICAL EDUCATION, & DRIVER'S EDUCATION**

<b>Health 7</b>		
Quarter	Required	
Grade 7		
<p><i>The seventh-grade health program is designed to allow students the opportunity to learn and practice aspects of overall health. Total health includes mental, emotional, social, and physical health. Students study the body and how it functions. They discuss issues regarding values, positive attitudes, acceptance, and tolerance, and apply these to daily situations. Students are challenged to think independently and to take responsibility for their health. They learn to identify good health habits and are encouraged to promote healthy lifestyle choices.</i></p>		

<b>Health 8</b>		
Quarter	Required	
Grade 8		
<p><i>The eighth-grade health program is designed to allow students the opportunity to learn and practice aspects of overall health. Total health includes mental, emotional, social, and physical health. Students study the body and how it functions. They discuss issues regarding values, positive attitudes, acceptance, and tolerance, and apply these to daily situations. Students are challenged to think independently and to take responsibility for their health. They learn to identify good health habits and are encouraged to promote healthy lifestyle choices.</i></p>		

## Health 9

Semester	Required	0.5 credit
Grade 9		

*The ninth-grade health program is designed to allow students the opportunity to learn information in such a way that it influences them to take positive actions regarding their own health. The students will be exposed to various health topics throughout the program including overall wellness, character building, health and your body, health and your mind, protecting your health in a drug-oriented society, family life, sexuality and social health, diseases and disorders, and safety and emergency issues.*

## Physical Education 9-12

Semester	Required	0.5 credit
Grades 9-12		

*The physical education program is designed to assist students in developing the following physical qualities: strength, endurance, cardiovascular fitness, and flexibility. Other characteristics such as respect, sportsmanship, cooperation, and acceptance of different abilities will be demonstrated daily in a positive instructional environment. Students will understand the importance of being both mentally and physically fit and will be encouraged to make healthy choices and maintain an active lifestyle. This course will feature fitness activities in the fitness center such as circuit training, weight lifting, yoga ect. as well as individual sports and team sports.*

## National Archery in the School's Program

Semester	Elective	0.5 credit
Grades 9-12		

*This is a basic archery course that focuses on beginning archery safety, skills, and drills. Participants learn about archery form, range rules and etiquette. Form training and fun games are introduced in this class. This class also focuses on a continued education towards tournament styles of shooting used by many archery tournament associations from around the world. Along with the tournament lesson, participants receive continued knowledge around their shooting form and advice on personal equipment selections.*

## Competitive Team Sports

Semester	Elective	0.5 credit
Grades 10-12		Prerequisite: Physical Education 9-12
<p><i>The physical education program is designed to assist students in developing the following physical qualities: strength, endurance, cardiovascular fitness, and flexibility. Other characteristics such as respect, sportsmanship, cooperation, and acceptance of different abilities will be demonstrated daily in a positive instructional environment. Students will understand the importance of being both mentally and physically fit and will be encouraged to make healthy choices and maintain an active lifestyle. Additionally, this course is designed to emphasize teamwork and cooperation as well as hone advanced level athletic skills and talents.</i></p>		

## Driver's Education

Semester	Recommended	0.5 credit
Grade 10		
<p><i>Tenth grade students are encouraged to partake in the Driver's Education course. Emphasis will be placed on traffic laws and safety, principles of automobile management and driver responsibilities. Instruction includes care and upkeep of the automobile. Content and performance expectations for driver education include: PA laws and regulations, knowledge of vehicle operations, perceptual skills development, decision making and risk reduction, driving conditions and the influences upon driver performance.</i></p>		

## Personal Fitness

Monday, Wednesday, and Friday in tandem with Chemistry 2 Lab or Human Anatomy and Physiology Lab	Elective	0.5 credit
Grades 10-12		Prerequisite: Physical Education 9-12
<p><i>The purpose of this course is for students to design and develop an individualized fitness plan. By evaluating their needs and goals, students will target specific workouts for improvement. Students will be introduced to various types of workouts which target different needs. The student will use this information to design their personal and individualized fitness plan. Students' focus could target specific workouts which are not limited to; weight management, strength training, aerobic training, improving body image and overall fitness/wellness.</i></p>		

# MATHEMATICS

<b>Math 7</b>		
Full Year	Required	
Grade 7		
<p><i>Math 7 focuses four critical areas of mathematics (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, working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Students will take the Math 7 PSSA in the spring.</i></p>		

<b>*Advanced Pre-Algebra</b>		
Full Year	Teacher Recommendation	
Grade 7		Prerequisite: Advanced on elementary math PSSAs
<p><i>Students in Advanced Pre-Algebra go beyond the Math 7 standards to prepare for Algebra I Honors in 8th grade. This includes, but is not limited to, solving multi-step equations, graphing lines other than proportional relationships, an introduction to functions, and additional instruction on probability and statistics. Students will take the Math 7 PSSA in the spring.</i></p>		

<b>*Math 7 Lab</b>		
Full Year	Required	
Grade 7		Corequisite: Math 7 or Advanced Pre-Algebra
<p><i>All 7th grade students must enroll in Math 7 Lab. In this course, students will complete activities that extend the lessons learned in Math 7 and Advanced Pre-Algebra. They will also complete individual and small-group intervention sessions to improve mental math skills and complete review exercises in preparation for the Math 7 PSSA.</i></p>		

<b>Math 8</b>		
Full Year	Required	
Grade 8		
<p><i>Math 8 focuses on three critical areas of mathematics: (1) formulating and reasoning about expressions and equations, including modeling an association of 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; and (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.</i></p>		

<b>**Algebra I Honors</b>		
Full Year	Teacher Recommendation	1 credit
Grade 8	Weighted Course	Prerequisite: Pre-Algebra with 90% average
<p><i>The course includes a review of integer arithmetic, distribution, and multi-step equations and inequalities. Students write equations of lines, graph linear equations and inequalities, write and solve systems of equations and inequalities including word problems. Students solve absolute value equations and inequalities. Students use function notation, evaluate functions, identify functions, and find domain and range. Students explore and apply the properties of exponents. Students estimate and simplify irrational expressions. Students perform arithmetic operations on polynomials and factor quadratics. Students will take the Math 8 PSSA and Keystone Algebra 1 exams in the spring.</i></p>		

<b>*Math 8 Lab</b>		
Full Year	Required	
Grade 8		Corequisite: Math 8 or Algebra 1 Honors
<p><i>All 8th grade students must enroll in Math 8 Lab. In this course, students will complete activities that extend the lessons learned in Math 8 and Honors Algebra. They will also complete individual and small-group intervention sessions to improve mental math skills and complete review exercises in preparation for the Math 8 PSSA.</i></p>		

<b>*Algebra I</b>		
Full Year	Required	1 credit
Grade 9		
<p><i>Students will formalize and expand on algebraic concepts established in previous coursework. Students will deepen and extend their understanding of linear relationships by applying linear models to data that exhibit a linear trend. Students will engage in methods for analyzing and using functions. Students will move fluently between multiple representations of linear functions, including systems of linear equations. Students will apply their knowledge of linear inequalities to compound inequalities. Students will also expand their knowledge of probability and statistics to compare and contrast data sets and calculate compound and dependent probabilities. Students will take the Keystone Algebra I exam in the spring.</i></p>		

<b>*Algebra I Lab</b>		
Full Year	Recommended	1 credit
Grade 9		Corequisite: Algebra 1
<p><i>Algebra I Lab is an optional course which provides students with a chance to get more exposure to and experience with Algebra I course material. It is recommended that students who benefited from two math courses in 7th and 8th grade take this class. Students will complete additional learning activities related to Algebra I lessons, participate in intervention sessions individually and in small groups, and review for the Algebra 1 Keystone exam in the spring.</i></p>		

<b>Algebra IB</b>		
Full Year	Required	1 credit
Grades 10-11		Prerequisite: Algebra IA
<p><i>This course is only available to students who passed Algebra 1A in May 2024. Students in Algebra IB begin the year where they left off in the previous course and continue to master Algebra I standards. The course concludes with a review of all Algebra I concepts and skills to prepare for the Keystone Algebra I exam.</i></p>		

<b>Geometry</b>		
Full Year	Required	1 credit
Grades 11-12		Prerequisite: Algebra I
<p><i>The purpose of this course is to formalize, deepen, and extend students' geometric and algebraic experiences. Students will continue their work with similarity and congruence from 7th and 8th grade. Students explore more complex geometric concepts and relationships, including: formal mathematical arguments (proofs), transformations, the coordinate system, right triangle trigonometry, circles, and solids.</i></p>		

<b>**Honors Geometry</b>		
Full Year	Teacher Recommendation	1 credit
Grades 9-11	Weighted Course	Prerequisite: Algebra I with 90% average
<p><i>Geometry is a formal mathematical system based on definitions and assumptions. Its purpose is to build the system through proven theorems and to show how the system is applied to specific problems. It develops the students' ideas of plane and spatial relations, their knowledge of various geometric figures, their concepts of formal mathematical proofs, and their ability to reason deductively. The course begins with basic Geometric definitions, transformations, reasoning, and problem solving. Next, students study triangles and other polygons, focusing on properties, congruence, and measurement. Then, students learn basic trigonometry and properties of parts associated with circles. The course concludes with surface area and volume of solids. Extra attention will be placed on proofs, constructions, and mathematical modeling.</i></p>		

<b>Algebra II</b>		
Full Year	Recommended	1 credit
Grades 10-12		Prerequisite: Algebra I and Geometry (may co-enroll with Geometry with teacher recommendation)
<p><i>This course is recommended for college-bound students. We begin the year with order of operations, solving equations and inequalities, and rewriting equations and formulas. We then discuss slope, graphing lines, and writing equations of lines. Solving systems of equations and inequalities is the next topic. We also discuss methods to graph and solve quadratic functions. The next topic will discuss simplifying polynomials and solving polynomial equations. Powers, roots, and solving radical equations is followed by simplifying rational expressions and complex fractions. Some extra topics are covered if time permits to further prepare the students for Advanced Algebra/Trigonometry.</i></p>		

<b>**Algebra II Honors</b>		
Full Year	Teacher Recommendation	1 credit
Grades 10-12	Weighted Course	Prerequisite: Algebra I and Geometry grade of 90% or better and Proficient/Advanced on Keystone Algebra I exam
<p><i>In Algebra II Honors, we begin the year with a quick review of some Algebra I concepts including solving, writing, and graphing linear equations and inequalities. Solving systems of equations and inequalities is the next topic, which will include solving three variable systems. Then we will introduce the concept of matrices and how they can be used for problem solving in different situations. We also discuss methods to graph and solve quadratic functions. The next topic will discuss simplifying polynomials and solving polynomial equations using different methods including factoring and finding possible rational zeros. Powers, roots, and solving radical equations is followed by simplifying rational expressions and complex fractions. We will then learn the concepts of direct, inverse, and joint variation and how this can be applied to various problems. More emphasis will be placed on application problems in Algebra II Honors including homework and test questions. The level of rigor will be greater in Algebra II Honors as well as more concepts being covered with less time spent on each concept.</i></p>		

<b>**Precalculus: Functions and Trigonometry</b>		
Full Year	Teacher Recommendation	1 credit
Grades 11-12		Prerequisite: Algebra II grade of 80% or better and Proficient/Advanced score on Keystone Algebra I exam
<p><i>This is a course for college-bound juniors and seniors. It begins with a review of some topics in algebra including linear equations and functions, quadratic equations and functions, conic sections, and graphs of other polynomial and rational functions. The course continues with a study of rational exponents, exponential functions and logarithms. The algebra portion of the course concludes with a study of arithmetic and geometric sequences and series, Pascal's triangle, and the binomial theorem. The second half of the year contains a thorough study of the traditional topics in trigonometry including triangulation, the trigonometric identities, the unit circle, graphs, inverse trigonometric functions, trigonometric equations, word problems, polar graphing, and bearings.</i></p>		



<b>**Calculus</b>		
Full Year	Teacher Recommendation	1 credit
Grade 12		Prerequisite: Advanced Algebra/Trigonometry grade of 75% or better
<p><i>This is a course for college-bound seniors who are planning to major in mathematics, engineering, business, computer science, or other fields requiring calculus at the college level. All of the traditional topics of differential calculus including limits, derivatives, optimization, related rates, and graphing are covered during the first half of the year. The second half of the year is devoted to integral calculus and includes several methods of integration, methods for finding area under a curve, and methods for finding the volume of a solid of revolution.</i></p>		

<b>Probability and Statistics</b>		
Semester	Elective	0.5 credit
Grades 11-12		Prerequisite: Algebra I and Geometry grade of 80%
<p><i>This course begins with an introduction to statistics and their use in a variety of fields. Next is a discussion of how to describe data graphically and how to analyze data numerically. Probability and the rules of probability are discussed in detail. The course continues with the normal distribution, sampling, and other topics in inferential statistics including estimation, hypothesis testing, linear correlation and regression. Emphasis is placed on written analysis and interpretation of mathematical findings.</i></p>		

<b>Personal Finance</b>		
Semester	Required	0.5 credit
Grade 12		
<p><i>This course is geared for seniors and is designed to better equip the student to confront problems they will face when they are no longer in school. Personal finance will review basic math skills and concepts and apply them to everyday mathematical situations. Topics discussed include checking and savings accounts, paying bills, APR and amortization tables, insurance, taxes, credit cards, credit reports, credit scores, identity theft, and retirement.</i></p>		

# MUSIC

<b>General Music</b>		
Quarter	Required	
Grade 8		
<p><i>This course is designed to give students an introduction to the many different styles of music. It will allow students to experience classical pieces of music and follow music's development over many centuries. It will also dive into the worlds of marching band, pop/rock, and musical theater. This course will also provide students the opportunity to create music no matter their musical background. Students will use a number of iPad apps, programs and pieces of technology to aid them in writing, creating and recording their own music. Students will learn different songwriting techniques and song forms.</i></p>		

<b>Band (Marching and Concert)</b>		
Full Year	Elective	1 credit
Grades 7-12		
<p><b>Marching Band</b> is an elective course for students in grades 7-12. This course formally begins with summer band camp in August. Additional time beyond the five periods per week is required of students electing this course, including football games and parades and rehearsals. In compromise with marching band activity, good music performed will give the participating band member practical experience in cooperation, discipline, and pride of membership in the organization. Active participation in the marching band will develop physical, mental, emotional, and social attributes. In addition to the educational values of the program, we cannot forget that it is one of the most influential public relations outreaches of the music program and the school.</p> <p><b>Concert Band</b> is an elective course for students in grades 7-12. Additional time beyond the five periods per week is required of students electing this course, including concerts and rehearsals. The concert band is judged by the audience through its performance; however, the time spent in preparing the concert would be wasted if all the action was spent on audience appeal and nothing else. In the concert band, as in the marching band, music is the justification. The concert band is not segregated from the marching band but a continuation of music experiences is gained through it. Students sign up to participate for the year. Band rehearsals give the member a chance to continue to develop his/her understanding of music through participation.</p>		

<b>**Chorus</b>		
Semester	Elective	0.5 credit
Grades 7-12		
<p><i>This course consists of the study and performance of various styles of chorale music. Sight reading, pitch matching and vocal production will be focused on. The course is a performance-based class as those students enrolled will perform for school and/or community functions.</i></p>		

<b>Music Appreciation</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>This course is designed to provide students with extended musical knowledge and appreciation for popular music in America from the early 1900's to the present. Students will be encouraged to listen critically to popular music and to identify the roots of today's music in earlier styles. The course also discusses the evolution of popular music, the music business and technology's role in music. The general timeline for this course is:</i></p> <p><i>Music of the 19th &amp; 20th Century</i>  <i>Social Dance &amp; Jazz</i>  <i>Tin Pan Alley</i>  <i>The Swing Era</i>  <i>Rock &amp; Roll (1954-1959)</i>  <i>American Pop &amp; British Invasion (60's)</i>  <i>Country, Soul, &amp; Rise of Rock (60's)</i>  <i>Rock Music &amp; Popular Mainstream (70's)</i>  <i>Reggae, Punk, Funk &amp; Disco (70's)</i>  <i>Digital Technology &amp; MTV (80s')</i>  <i>Hip-Hop, Alternative &amp; Today (90's)</i></p>		

# SCIENCE

<b>Integrated Science 7</b>		
Full Year	Required	
Grade 7		
<p><i>This course is designed to provide students with a comprehensive understanding of Earth, life and physical science. Students will explore various topics including cells and organelles, human body systems, sexual vs asexual reproduction, genetics and inheritance, ecology (biotic vs abiotic factors, relationships, energy flow in ecosystems), electricity, waves/EM radiation, minerals, and energy resources (renewables vs nonrenewables). Additionally, this course will include preparation and remediation for the Pennsylvania System of School Assessment (PSSA). Coursework includes notes, readings, online labs, labs, group projects, presentations and inquiry based activities.</i></p>		

<b>Integrated Science 8</b>		
Full Year	Required	
Grade 8		
<p><i>This course is designed to provide students with a comprehensive understanding of Earth, life and physical science. Students will explore various topics including properties of matter (chemical properties, physical properties, density etc.) states of matter, heat/thermal energy transfer, atoms, the periodic table, chemical reactions, rock types and the rock cycle, geophysical processes, forces and projectile motion. Additionally, this course will include preparation and remediation for the Pennsylvania System of School Assessment (PSSA). Coursework includes notes, readings, online labs, labs, group projects, presentations and inquiry based activities.</i></p>		

<b>Ecology</b>		
Full Year	Required	1 credit
Grade 9		
<p><i>Ecology is the study of how organisms interact with each other and their environment at population, community, and ecosystem levels. The goal of this course is to familiarize students with ecological theory and its applications.</i></p>		

<b>Biology</b>		
Full Year	Required	1 credit
Grades 9-10		Prerequisite: 9th grade students must have a teacher recommendation based upon classroom performance and diagnostic tools data.
<p><i>Biology is designed to provide a comprehensive review of ecological and biological principles. The course focuses on the chemical basis for life, bioenergetics, homeostasis and cell transport, cell growth and reproduction, genetics, the theory of biological evolution, and ecology. Additionally, this course rigorously prepares students for the Biology Keystone in the spring.</i></p>		

<b>Chemistry</b>		
Full Year	Elective	1 credit
Grades 10-12		Prerequisite: Biology and a final average of 75% or better in Algebra I
<p><i>Chemistry is designed to give an overview of all chemistry concepts. The content covered includes the scientific method, atoms, elements and trends of the periodic table, compounds, nomenclature, and chemical reactions, composition, quantities, and bonding, and gasses. To be successful in chemistry, students must take the concepts learned in class and apply them in the lab. Therefore, students will be required to properly identify and use laboratory equipment and follow proper safety protocols to conduct numerous experiments relating to the concepts. Some topics covered require extensive mathematical problem-solving skills. A basic knowledge of algebra is a necessity.</i></p>		

<b>**Chemistry II</b>		
Full Year + double block Tuesdays and Thursdays	Teacher Recommendation	1.4 credits
Grades 11-12	Weighted Course	Prerequisite: 85% or better in Chemistry, previously passed or concurrent with Trigonometry
<p><i>Chemistry II course is designed to provide students with the foundation of chemistry content and laboratory skills necessary for a general chemistry college course and will</i></p>		

*build on content learned in Chemistry. There is also a more intensive use of math with Chemistry II. The Chemistry II laboratory section will prepare students to use similar procedures in college. Therefore, students will be required to write college-level lab reports for this course. Topics covered include energy, solutions, acids and bases, oxidation and reduction, organic chemistry principles, and biochemistry.*

### **Environmental Chemistry**

Full Year	Elective	1 credit
Grades 10-12		Prerequisite: Biology

*The focus of Environmental Chemistry is to introduce students to the foundations of general chemistry and the effect chemicals have on the natural environment and human health. Students will have an opportunity to learn and engage with environmental issues and concerns in the context of scientific studies and chemistry contexts. This course will cover the fundamental concepts of general chemistry; such as the scientific method, atoms, elements and trends of the periodic table, compounds, nomenclature, and chemical reactions. It will also cover topics such as climate science, water pollution and treatment, and waste management and recycling. Students will learn skills such as critical thinking, problem-solving, long-term planning and decision-making, risk-benefit assessment, organizational skills, and writing skills. They will also explore how environmental scientists use and apply their knowledge within the workforce.*

### **Forensic Science**

Full Year	Elective	1 credit
Grades 11-12		Prerequisites: Biology

*Forensic Science will engage students in a laboratory-based science class designed for students who are interested in the application of science for solving crimes. The purpose of this course is for students to gain experience in the major investigative techniques currently used by forensic scientists and crime scene investigators, and to develop an understanding of the scientific concepts which serve as the basis for these techniques. Students will also investigate real-world situations, scenarios, and cases and apply what they have learned to investigate and analyze the cases.*

## **\*\*Human Anatomy and Physiology**

Full Year + double block Tuesdays and Thursdays	Teacher Recommendation	1.4 credits
Grades 10-12	Weighted Course	Prerequisite: Biology grade of 80%
<i>Human Anatomy and Physiology is an advanced biology course specifically designed for students who plan on attending an institution of higher learning to become health-related professionals. The course studies the structure, function, and location of human body tissues and human body systems. Dissections include the cow eye, sheep brain, mammalian heart, mammalian kidney, Southern Leopard frog, and the fetal pig.</i>		

## **\*\*Physics**

Full Year	Teacher Recommendation	1 credit
Grades 11-12	Weighted Course	Prerequisites: Algebra II grade of 80%
<i>This course is only offered during even graduation years. Physics offers students a general preparation in physics. While the appropriate use of mathematics is employed to most efficiently describe natural phenomena, a considerable effort is made to apply physical principles to everyday phenomena. In this way, the course serves a dual role in that it will prepare students for a more mathematically intensive college physics course while making the principles learned more meaningful and useful in everyday life.</i>		

## **SOCIAL STUDIES**

### **PA & World**

Full Year	Required	
Grade 7		
<i>For the first semester, we will focus on the history and geography of Pennsylvania. The second semester of this course will provide students with knowledge about the physical, cultural, and human geography of the world (especially the Western World that is not covered as much in elementary school). Through this course, students will enhance their understanding of the locations of the world's regions. This course will provide instruction and practice to students in order to improve their basic map skills.</i>		

## Colonial History & The Constitution

Full Year

Required

Grade 8

*For the first semester, we will pick up with our founding fathers creating a government for the Americans as they gain their independence from England. Topics covered will include: What does it mean to be an American citizen; the foundations of American government; The Constitution (including amendments); and the 3 branches of our federal government.*

*During the second semester, Colonial History, students will study the beginnings of colonial life up to the end of the Revolutionary War. In this course we will focus on the development of the 13 English colonies and beginning of an American Identity.*

## World History

Full Year

Required

1 credit

Grade 9

*World History focuses on the people, places, governments and technologies from 1500 to the present. Topics covered include: Religions of the World, the Formation of Western Europe, Renaissance and Reformation, Absolute Monarchs, The Enlightenment, Nationalist Revolution Movements, World War II and the Restructuring of the Post-War World.*

## United States History I

Full Year

Required

1 credit

Grade 10

*United States History I explores American history from the signing of the Constitution to the Industrial Revolution of the late 1800's and early 1900's. In addition to historical events, there will be an emphasis on economics which includes the study of interest rates, the value of money, inflation, deflation, bottlenecks in production, as well as basic supply and demand relationships.*



<b>United States History 2</b>		
Full Year	Required	1 credit
Grade 11		
<p><i>United States History 2 will focus on the people, places, conflicts and changes from the Progressive Era to the Present Day. Topics covered will include: Progressive Movement, Imperialism, World War I, The Depression, the New Deal, World War II, The Cold War, Civil Rights Movement, Vietnam, the Fall of Communism, and Terrorism.</i></p>		

<b>**American Government</b>		
Full Year	Required	1 credit
Grade 12	Weighted Course with Dual Enrollment Option	
<p><i>In American Government students will complete an in depth study of the structure of government in the United States while comparing and contrasting this structure with other systems. This will include a detailed study of the Constitution. Time will be spent on how a bill becomes law, taxation on the federal and state level, interest groups, political parties, voting behavior, political labels, and the discussion of Supreme Court rulings. Current events will also be discussed with an emphasis on recognizing bias and propaganda. Students will be required to attend one school board meeting and one township meeting. Through the completion of the course, students will gain an awareness of their personal politics along with their rights and responsibilities as citizens.</i></p>		

<b>**Psychology</b>		
Semester	Elective	0.5 credit
Grade 12	Weighted Course with Dual Enrollment Option	Prerequisite: High School Social Studies course grades of 80%
<p><i>Psychology is the scientific study of mental processes and behavior. Topics covered in class will include: psychology, its relation to other social sciences, research methods, composition of the brain, sensation and perception, states of consciousness, learning, memory, thought and language, intelligence, motivation and emotion, childhood, adolescence, adulthood and aging, stress and health, personality, abnormal psychology, and therapies for mental health.</i></p>		

<b>**Sociology</b>		
Semester	Elective	0.5 credit
Grade 12	Weighted Course with Dual Enrollment Option	Prerequisite: High School Social Studies course grades of 80%
<p><i>Sociology is the science or study of the origin, development, organization, and functioning of human society. Topics covered will include: culture; social structure and group behavior; socialization; deviance and crime; social stratification and class; race and ethnicity; gender, age and health; the family; education and religion; politics and the economy; sports and entertainment; population and the environment; cities and urban life; collective behavior and social movements; and social change.</i></p>		

## **TECHNOLOGY EDUCATION**

<b>Invention, Convention, &amp; Innovation</b>		
Quarter	Required	
Grade 8		
<p><i>Invention, Convention, &amp; Innovation explores and develops the concepts of technology, the engineer design process, systems, and the history of invention and innovation through hands-on applications. Students explore the history of inventions and innovations including their impacts on society and the interconnected impacts of each discovery and development. Students learn core concepts of technology and engineering and are given the chance to apply their creativity through collaborative projects.</i></p>		

<b>The Magic of Movies: Exploring the Mechanics Behind Filmmaking</b>		
Semester	Elective	0.5 credit
Grades 9-12	Dual Enrollment–Eligible credits through Penn Highlands	Prerequisite: English grade of 83%
<p><i>Students learn what makes movies magical. We explore the technology behind the scenes, the systems used to take a story and generate it visually for the big screen. We will learn techniques used in our favorite movies, analyze stylistic choices, learn how to edit your own short movie, and research the thousands of jobs behind the scenes from sound, to lighting, to videography, to prop-design, and more. Students will learn how stories are told visually using rapidly advancing technology.</i></p>		

<b>Foundations of Technology &amp; Engineering</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>Foundations of Technology &amp; Engineering builds upon the concepts developed in elementary and middle school STEM classes by preparing students to understand and apply technological concepts and processes. This class utilizes group and individual activities that engage students in creating ideas, developing innovations, and engineering practical solutions. Technological and Engineering concepts covered are:</i></p> <ol style="list-style-type: none"> <li><i>1) processing and engineering design,</i></li> <li><i>2) materials manufacturing and fabrication</i></li> <li><i>3) core technologies</i></li> <li><i>4) drafting and design with CAD</i></li> <li><i>5) Robotics/animatronics applications and design</i></li> </ol>		

<b>Digital Design &amp; Rapid Prototyping</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>Digital Design and Rapid Prototyping has students work in groups to design and build their own hypothetical rapid prototyping business. Learn what it takes to run a business, design your website and prepare for clients. Your group's business will manage clients and learn the industry software and processes behind rapid design and prototyping. Get the idea into a proof of concept, a prototype, and market it to be sold or manufactured. Learn how to design concepts through Illustrator, Fusion 360, and Nomad Sculpt to be 3D printed, laser engraved, CNC routed, or built by hand in the shop. Great for anyone interested in running their own business, becoming a mechanical engineer, digital sculpting, or wants to take their tinkering game to the next level.</i></p>		

<b>Game Design &amp; Development I</b>		
Semester	Elective	0.5 credit
Grades 9-12		
<p><i>Game Design &amp; Development I provides an opportunity for students to immerse themselves in the world of game design and development. Students will explore conceptual and technical aspects of contemporary game creation using various programs and editors. This class stems from various Curricular Frameworks and includes modules focused on game design theory, the major aspects of game creation including mechanics, art, production and design. Students will begin by exploring the critical thinking behind game design theory, story, and game creation. Students will focus on key aspects of game design by implementing elements of art and production, through the use of various programs to fabricate prototypes with various degrees of</i></p>		

*fidelity. Students will peer review game prototypes created by their classmates, and use the iterative process to reflect on feedback provided on their own game and revise.*

### **Game Design & Development II**

Semester	Elective	0.5 credit
Grades 10-12		Prerequisite: Game Design & Development grade of 83%

*Game Design & Development II continues from Game Design & Development I with an emphasis on developing video games through the game design process using GDevelop and Microsoft. Students will work through building their competency to develop multiple projects concluding the semester with a capstone video game project. Students will be expected to maintain a creative journal, work collaboratively to debug and beta test one another's games and projects. Students will use the elements established from Game Design to complete their checkpoints and capstone project.*

### **CAD for Mechanical Design**

Semester	Elective	0.5 credit
Grades 9-12		

*CAD for Mechanical Design will teach students the basics of Fusion 360. Using industry standards and curriculum from Autodesk Fusion 360, students will learn drawing, organizing, 3D component modeling, 3D assembly modeling, technical detailed drawings, how to export designs for additive and subtractive manufacturing and more. Students will also be eligible to be certified through Autodesk (additional costs and testing) and receive an industry approved certification through Autodesk (Mechanical Design Associate Certification or certified user) that can be used for future employment opportunities. Great for anyone interested in pursuing a career as a mechanical engineer, is interested in computer aided design, modeling, and 3D printing.*

### **DIY-Woodworking I**

Semester	Elective	0.5 credit
Grades 9-12		

*The intent of this course is to teach students what should be in their home toolboxes and how to use them. This course will provide students with the physical and safety skills associated with wood processing, while also introducing them to the design process and problem-solving to provide the confidence and skills to make home repairs or begin projects at home. This course will introduce the wood laboratory, safety*

*regulations, the safe operation of battery-operated power tools, hand tools, the design process, wood finishing, and the fundamentals of do-it-yourself. Over the course of the 18 weeks, the students will be exposed to the content of the course, machine processes, and design process, as well as complete several projects.*

### **DIY-Woodworking II**

Semester	Elective	0.5 credit
Grades 10-12	Strict Limit to 10 students for safety	Prerequisite: DIY-Woodworking I grade of 83%

*The intent of this course is for students to continue to develop the physical and safety skills associated with wood processing, while also improving on design skills and problem-solving. The students will be working in the computer lab and the wood lab to design and create several projects throughout the semester. Over the course of the 18 weeks, the students will be exposed to the content of the course, machine processes, design process, benchtop machines, and CAD software to complete several projects.*

### **DIY-Woodworking III**

Semester	Elective	0.5 credit
Grades 11-12	Strict limit to 5 students-teacher approval	Prerequisite: DIY-Woodworking II grade of 85%

*The intent of this course is for students to continue to develop the physical and safety skills associated with wood processing, while also improving on design skills and problem-solving. This is an independent, project-based class where each student will select or design a project to build within the shop. Students will learn the skills needed to safely use the machinery for their selected project. In order for students to have the ability to build their own project safely, this class is limited to 5 students who have been approved to take this class based on effort, quality of work, and an interest in pursuing woodworking as a potential career.*