

**Ferndale Are Junior Senior High School**  
**2022-2023**  
**COURSE CATALOG**

**BUSINESS, COMPUTERS, INFORMATION AND  
TECHNOLOGY**

**Computer 7  
Courses  
7<sup>th</sup> Grade**

**Cycle  
Quarter**

All seventh-grade students will take this nine-week course throughout their 7<sup>th</sup> grade year. Students will be introduced to touch typing and the proper technique. Students will acquire and/or demonstrate proficiency understanding basic computer terminology, using basic operating systems features, Internet, word processing software, spreadsheets, and presentation software. These computing skills will assist students in other courses or future jobs.

**Intro to Business  
9-12<sup>th</sup> Grade**

**Elective**

**Semester  
.5 credit**

Introduction to Business is a perfect class for any student who is interested in the world of business. A wide range of topics will be covered including everything from General Business to International Business to Marketing and Leadership. This class will give students the skills needed to excel in the business world, as well as other business and technology classes. The course will be geared towards ninth and tenth graders, but is open to anyone in grades 9-12 with an interest in business.

**Small Business Management  
10-12<sup>th</sup> Grade**

**Elective**

**Semester  
.5 credit**

This class is great for any student headed to college. The major project of the course will be the development of a Business Plan, which is required to start any small business. Throughout, and after, the creation of the Business Plan, several other business topics will be covered, including Marketing, Finance, and Entrepreneurship. Along with covering these topics, we will be creating cover letters, resumes, reference sheets, acceptance/rejection letters, and will also include a mock interview.

**Financial Management  
9-12<sup>th</sup> Grade**

**Elective**

**Semester  
.5 credit**

This class explores the field of finance and builds a foundation for financial planning. The course introduces concepts regarding finance, banking systems, and investments. Financial Management will help students gain an understanding of banking systems and how banks make money. This course will also cover the importance of financial planning and the different types of investment strategies available. Lastly, this course will prepare students who are considering a career in a finance related career.

**Accounting I**  
**9-12<sup>th</sup> Grade**

**Elective**

**Full Year**  
**1 credit**

This is a great course for anyone that is interested in the world of business. Throughout the duration of the course, we will complete the Accounting Cycle, by gaining basic accounting skills. The course will focus on accounting practices that are used in sole proprietorships and partnerships. In addition to learning the manual process of accounting, we will also use a computer program to aid us on various projects. By studying accounting, you will develop an overall picture of how the business world works. Such understanding is a good base for further study and career advancement in the world of work.

**Accounting II**  
**10-12<sup>th</sup> Grade**

**Elective**

**Full Year**  
**1 credit**

**Prerequisite: 75% or better in Accounting I**

A continuance of Accounting I, the course is designed for students who wish to accomplish the following: become an accounting clerk, enter college and major in any business field, broaden knowledge about business procedures and the uses of accounting, and/or become small business owners. More emphasis will be placed on computerized accounting principles.

**Course: Introduction to Programming**  
**9<sup>th</sup>-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 Credit**

Students will be introduced to the foundations of computer science and basic programming language by learning Python. Throughout the course you will be able develop logical thinking and problem-solving skills. You will develop an understanding on variables, conditionals, looping, functions, strings. In addition to learning python, students will be able demonstrate what they learned by programming a micro bit to create a hands-on project. This course is designed to be engaging and doesn't require any previous background in computer science

**Game Design and Development**  
**9-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

The video game design course provides an opportunity for students to immerse themselves in the world of video game design and development. Students will explore conceptual and technical aspects of contemporary video 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 programming, art, production and design, and exploration of the conceptual and technical implementation of elements within those domains. Students will begin by exploring the critical thinking behind game design theory, story, and game creation, and develop their own unique non-digital game. In the second module, students will focus on key aspects of video game design, writing and implementing code in various editors, and implementing elements of art and production, as they use basic features to create an initial game. In the final module, students will explore advanced constructs of game development such as level design, cameras, lighting, and audio, as they complete a capstone video game project. Students will then peer review video games created by their classmates, and use the iterative process to reflect on feedback provided on their own game and revise.

Over the course of the semester, students will be engaging in discussions around current trends in the game industry and the future of the field. There will be a strong focus on project management for technical projects such as video game creation. This course will require accurate and thorough documentation, including game design documents and a game developer's journal, as well as clear and consistent communication with classmates.

**Micro-Computer Applications (DE)      Elective      Semester  
9-12<sup>th</sup> Grade      .5 credit**

This is a semester long course that will focus on the skills needed to use Microsoft Word 2007, Microsoft Excel 2007, and Microsoft PowerPoint 2007. The students will learn how to define the workspace of all these different products as well as learn the skills and applications of these products. The students will complete projects and assignments that scaffold the learning of these skills and applications and be able to transfer these skills.

**Video Production      Semester  
Grades 7-12<sup>th</sup>      .5 credits**

In this course, students will learn the basic concepts associated with video production. Including but not limited to: camera skills, video editing, media analysis, and cinematography. Students will work individually and in groups to write, shoot, and edit their own projects. Students will complete projects during this semester course based on class interest, but will also include work such as the School Video Announcements Channel. Other projects may include: commercials, short films, and music videos. Selected videos are screened during class throughout the semester to enhance the critique process. Students will work with the following software on desktop computers: Adobe Premiere Pro and Adobe Photoshop.

**Web Page Design      Semester  
Grades 9-12<sup>th</sup>      .5 credits**

In this course, students will learn the basic concepts associated with creating a web page. We will be using Adobe Dreamweaver 8 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 programming.

## **ENGLISH**

### **English 7 7<sup>th</sup> Grade**

**Required**

**Full Year**

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.

### **Advanced English 7 7<sup>th</sup> Grade**

**Required**

**Full Year**

**Prerequisite: Advanced PSSA scores.**

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.

### **Reading 7 7<sup>th</sup> Grade**

**Required**

**Full Year**

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.

**English 8  
8<sup>th</sup> Grade**

**Required**

**Full Year**

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.

**Advanced English 8  
8<sup>th</sup> Grade**

**Required**

**Full Year**

**Prerequisite: Advanced PSSA scores; final average of 93% in English 7 or final average of 88% in Advanced English 7; teacher recommendation.**

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.

**Reading 8  
8<sup>th</sup> Grade**

**Required**

**Full Year**

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.

**English 9  
9<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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.

**Honors English 9  
9<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

**Weighted course**

**Prerequisites: Advanced PSSA scores; final average of 93% in English 8 or 88% in Honors English 8; teacher recommendation.**

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.

**English 10  
10<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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 a novel. At the end of the course, students will take the Pennsylvania Keystone Exam for Literature.

**Honors English 10  
10<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

**Weighted course**

**Prerequisites: Final average of 93% in English 9 or 88% in Honors English 9; teacher recommendation.**

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 PA state standards. Students will practice and refine these skills through a variety of activities, assignments, and projects. Advanced composition and research writing is 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.

**English 11  
11<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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. The course will stress Keystone Test practice, organizational strategies, and the necessity of using textual details as support when writing an argument, opinion, or a formal essay. This will help students prepare for successfully taking the Keystone Literature Exam or the Local Assessment in order to meet graduation requirements. Course content is determined by the unique and individual needs of the students enrolled in the class.

**Honors English 11  
11<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

**Weighted course**

**Prerequisite: Final average of 93% in English 10 or 83% in Honors English 10; Teacher Recommendation**

Students in Honors English 11 will also study American authors, with the first semester focusing on literature from the Puritan period to the Romanticism and the second semester focusing primarily on three 20<sup>th</sup> 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.

**English 12  
12<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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.

**Honors English 12  
12<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

**Weighted course**

**Prerequisite: Honors English 11 and Teacher Recommendation**

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.

**AP English Literature & Composition  
12<sup>th</sup> Grade**

**Required**

**Full Year  
1.2 credit**

**Weighted course**

**Prerequisite: A final average of 80% or higher in AP English Language and Composition, as well as teacher recommendation. If a student would like to take AP English Literature & 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.**

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.

**Creative Writing  
9-12<sup>th</sup> Grade**

**Elective**

**Semester  
.5 credit**

Creative Writing is intended to help writers achieve a more advanced level of composition writing skills. Students will utilize a variety of genres and forms 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 poetry, plays, and independent projects. Students interested in writing as a profession or students who enjoy writing should schedule this course.

**Public Speaking  
9<sup>th</sup> Grade**

**Semester  
.5 credit**

The goal of this course is for students to learn the process of oral communication, which includes speaking before a group, conducting a job interview, and interviewing for a job. Students will create speech outlines, write Persuasive, Informative, and Commemorative speeches, and conduct the necessary research in order to provide relevant support for their message(s). We will also have some fun with Impromptu speaking. Students will learn that plagiarism is a serious offense in and out of school. This course follows the Modern Language Association's guidelines for writing, parenthetical citations, and Works Cited pages. Using the Help Wanted section of a newspaper, students will choose a job, write a practice Letter of Interest, application, and Resume, and take part in a mock interview for that position.

**College Grammar  
11<sup>th</sup>-12<sup>th</sup> grade**

**Elective**

**Semester  
.5 credit**

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.

# FAMILY AND CONSUMER SCIENCES

**Family & Consumer Sciences**      **Cycle**  
**Courses**      **Quarter**  
**7<sup>th</sup> Grade**

This hands-on course introduces students to the Family and Consumer Sciences curriculum. The areas of concentration include: family life skills, caring for young children, and sewing basics. Cooperative learning and practical life skills are an integral part of this course.

**Basic Foods and Nutrition**      **Elective**      **Semester**  
**9<sup>th</sup>-12<sup>th</sup> Grade**           **.5 credit**

In this class students will become more self-sufficient in the kitchen. They will understand the body's nutritional needs and acquire a foundation of good general food preparation skills so that they can read a recipe, measure accurately, and follow directions while working safely and efficiently in the kitchen. Food labs are the supplement to classroom lessons, discussions, and demonstrations. Students will then research a different region of the United States and complete a written paper and oral presentation on the region. Students will plan a meal and experiment cooking foods from that region.

**Advanced Foods and**  
**Nutrition**      **Elective**      **Semester**  
**9-12<sup>th</sup> Grade**           **.5 credit**  
**Prerequisite: Basic Foods and Nutrition**

In this class, students will add to the basic concepts and skills learned in the beginning basic foods course. In addition to advanced techniques while working in the kitchen, students will also learn the more technical and scientific methods of food science technology. Students will also be exposed to various types of ethnic and foreign foods in this class.

**Child Development**      **Elective**      **Semester**  
**10<sup>th</sup>-12<sup>th</sup> Grade**           **.5 credit**

In this class students will learn how a child grows and develops from conception through age five. Classes will examine the development that occurs during each month of pregnancy and what a mother needs to do to ensure the baby's health. Parenting means providing care, support, and love in a way that leads to a child's total development. This includes being responsible for the child's physical needs and creating a nurturing environment. Students taking Child Development will be involved in "Baby Think It Over" and creating a thematic unit of activities.

**Independent Living**  
**10<sup>th</sup>-12<sup>th</sup> Grade**

**Grad. Requirement**

**Semester**  
**.5 credit**

Independent Living is a required course for all students. In this class students learn how to make the transition into their adult lives. This class offers the opportunity to develop the essential skills necessary to meet the challenging demands of life now and beyond. Topics studied include personal development and building relationships, consumer practices, budgeting, career goals, and daily living skills. Students will also devote a portion of their time creating a resume and cover letter and preparing for their future careers.

**Interior Design**  
**9-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

In this class students will learn the principles and elements of design when planning interior living spaces. Students will identify the factors in selecting a place to live, analyze floor plans, and draw interiors to scale. Students will design a room and complete a design board to display their selections.

**Baking**  
**9-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

**Prerequisite: Basic Foods and Nutrition**

In this class students will learn the classic methods and techniques that are used in the preparation of finished baked goods, and understand the various mixing methods that effects batters and doughs. Students will learn to accurately measure ingredients and understand recipe conversions.

## **FINE ARTS**

**Art 7**  
**7<sup>th</sup> Grade**

**Cycle Course**

**Quarter**

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.

**Intro to Art**  
**9-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

This is a basic fundamentals art class for students of all levels, skills and varied interests. Students will be introduced to various art processes, such as: drawing, painting, and printmaking. Emphasis will be placed on the fundamentals of *Art & Design*: color theory and mixing, texture, line, shape, value, balance and composition basics. Students will be introduced to various artists and study cultural influences of art through history. Students will also be responsible for

sketchbook work and several projects each marking period. There will be continued discussion and exploration of the Pennsylvania Art Standards.

**3-D Art** **Elective** **Semester**  
**10-12<sup>th</sup> Grade (Pre-Requisite of 70% or higher in Intro to Art)** **.5 credit**

This course will explore basic three-dimensional methods, processes and materials. To provide students with the technical processes and vocabulary associated with three-dimensional art forms. Methods include Sculpture, Ceramics, Crafts, Media and Fiber Arts. Prerequisite of at least a grade of 70% in Introduction to Art required.

**2-D Art** **Elective** **Semester**  
**10-12<sup>th</sup> Grade (Pre-Requisite of 70% or higher in Intro to Art)** **.5 credit**

This course will investigate two-dimensional Art forms, methods and materials. To provide students with the technical processes and vocabulary associated with two-dimensional art forms. Art forms including Design, Drawing, Painting and Printing. Prerequisite of at least a grade of 70% in Introduction to Art required.

**Senior Art Seminar** **Elective** **Semester**  
**12<sup>th</sup> Grade (Pre-Requisite of 70% or higher in Intro to Art)** **.5 credit**

For seniors only. This class is for students who have maintained high grades in all prior art courses. Must be approved by Art teacher. This course is geared towards the student who is advanced in art and plans to further their education and obtain a career in art. Students must be self-motivated to independently work in a specific medium or themed body of work.

## Foreign Languages

**French I** **Full Year**  
**9-12<sup>th</sup> Grade** **1 credit**

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.

**French II** **Full Year**  
**10-12<sup>th</sup> Grade** **1 Credit**  
**Prerequisite: C or better average in French 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.

**French III** **Elective** **Full Year**  
**11-12<sup>th</sup> Grade** **1 credit**  
**Prerequisite: B or better average in French II**  
**Recommendation: B or better average in English**

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.

**French IV/V** **Elective** **Full Year**  
**12th Grade** **1 credit**  
**Weighted course**  
**Prerequisite: B or better average in French III**  
**Recommendation: B or better average in English**

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.

**Spanish I**  
**Full Year**  
**9<sup>th</sup> Grade** **1 credit**

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 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.

**Spanish II** **Full Year**  
**10-12<sup>th</sup> Grade** **1 Credit**  
**Prerequisite: Average of a C or above in Spanish 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.

**Spanish III** **Elective** **Full Year**  
**11-12<sup>th</sup> Grade**  
**1 credit**

**Prerequisite:** an average of an A or B in Spanish II

**Recommendation:** an average of an A or B in English the year prior

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 re-tell short stories in Spanish.

**Spanish IV** **Elective**  
**Full Year**  
**11-12<sup>th</sup> Grade** **1 credit**

**Weighted course**

**Prerequisite:** an average of an A or B in Spanish III

**Recommendation:** an average of an A or B in English the year prior

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. In this level, students read and interpret authentic Latin American literature.

**Spanish V** **Elective**  
**Full Year**  
**12<sup>th</sup> Grade** **1 credit**

**Weighted course**

**Prerequisite:** B or better average in Spanish IV

**Recommendation:** B or better average in English

Students in Spanish V will use all grammar concepts taught in levels I-IV and will continue to be introduced to more advanced vocabulary and synonyms for previous vocabulary. This course is supplemented with advanced level textbooks and exercise to prepare the student for post-secondary Spanish education.

## **Health, Physical Education, and Driver's Education**

**Health 8  
8<sup>th</sup> Grade**

**Required**

**9 Weeks**

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.

**Health 9  
9<sup>th</sup> Grade**

**Required**

**Semester  
.5 credit**

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  
8<sup>th</sup> Grade  
9-12<sup>th</sup> Grade**

**Required  
Quarter  
Semester**

**.5 credit**

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.

**Competitive Team Sports  
10-12<sup>th</sup> Grade**

**Elective**

**Semester  
.5credit**

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.

<b>National Archery in the School's Program</b> <b>9<sup>th</sup>-12<sup>th</sup> Grade</b>	<b>Elective</b>	<b>Semester</b> <b>.5 credit</b>
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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.

<b>Driver's Education</b> <b>10<sup>th</sup> Grade</b>	<b>Suggested</b>	<b>Semester</b> <b>.5 credit</b>
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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.

## **Mathematics**

<b>Math 7</b> <b>7<sup>th</sup> Grade</b>	<b>Required</b>	<b>Full Year</b>
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Math 7 is designed to continue to build upon the math concepts/ideas taught at the elementary level. Students are first exposed to integers. They will apply their prior knowledge of algebraic properties and numbers as they compare and order integers. Students use this information to evaluate, write and solve algebraic expressions and one-step and two-step equations. Next the students extend their knowledge of order of operations to include exponents, simplifying fractions, comparing and ordering fractions and mixed numbers. Also, students will express fractions as decimals and vice versa. With these concepts, students learn to solve equations involving fractions. Students are then exposed to equal ratios and ratios that form proportions. Students will solve proportions to find lengths of similar figures and problems involving scales. Students then work with percents and apply these concepts to real-world applications. Time permitting, students will be introduced to different concepts involving geometry, measurements, patterns and rules, graphing, displaying and analyzing data and probability.

<b>Pre-Algebra</b> <b>7-8<sup>th</sup> Grade</b>	<b>Required</b>	<b>Full Year</b>
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**Prerequisite: Advanced 6<sup>th</sup> Grade Math or Math 7**



Pre-Algebra reintroduces the students to previously learned concepts/ideas on an algebraic level. Students begin with evaluating and writing algebraic expressions using integers. Using integer sets, students will find measures of central tendencies. They are also exposed to powers and exponents using the properties of numbers. Students continue working with expressions by writing and solving one-step and two-step equations and inequalities. Students then work with graphing points and equations in the coordinate plane. With these graphs, students will solve problems and linear systems. Next, the students expand their knowledge of fractions by comparing, ordering and simplifying fractions. Students will then explore square roots and irrational numbers. The students are then reintroduced to ratios, rates and proportions. Students will use these concepts to solve problems involving similar polygons, scale models and indirect measurements. Students apply their knowledge of percentages to solve proportions and estimation problems. Also, they will apply these concepts to real-world applications. Time permitting; students will be introduced to different concepts involving exponents and powers, geometry, using graphs to analyze data, probability and algebraic relationships.

**Algebra I Honors  
8<sup>th</sup> Grade**

**Elective**

**Full Year  
1credit**

**Prerequisite: Pre-Algebra with 85% average and Proficient or Advanced on Math 7 PSSA and Teacher Recommendation**

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.

**Algebra IA  
8-9<sup>th</sup> Grade**

**Required**

**Full Year  
1credit**

**Prerequisite: Pre-Algebra**

Algebra 1A begins with a focus on data analysis and probability. We move on to linear equations and systems of linear equations. During these units, students write and solve one-variable equations; write and graph two-variable equations in more than one form; write equivalent equations; and write, graph, and solve systems of linear equations. We follow that with a unit on one- and two-variable inequalities, using the same skills we learned related to equations to express situations with constraints. Next, students return to data analysis when learning about linear regression. The course concludes with an introduction to functions and discussions about real, rational, and irrational numbers and their properties.

**Algebra IB**

**Required**

**Full Year**

**8-11 Grade****1 credit****Required for students who have not scored Proficient or Adv. on Keystone Algebra I**

This course is a continuation of Algebra 1A. The course begins with a review of equations, inequalities, and functions, including the introduction of absolute value equations and compound inequalities. Next, students focus on repetition and regularity when exploring the properties of exponents and radicals, extending number arithmetic to expressions involving exponents and radicals. Students continue this extension as they learn to add, subtract, multiply, divide, and factor polynomial expressions. The course concludes with a review of all Algebra 1 concepts and skills to prepare for the Keystone Algebra Math Assessment.

**Geometry  
9-11<sup>th</sup> Grade****Required****Full Year  
1 credit****Prerequisite: Algebra 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.

**Honors Geometry  
9-11<sup>th</sup> Grade****Required****Full Year  
1 credit****Weighted course****Prerequisite: Algebra I with 90% average and Proficient or Advanced on Keystone Algebra 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.

**Algebra II  
10-11<sup>th</sup> Grade****Required****Full Year  
1 credit**

## **Prerequisite: Algebra I and Geometry**

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.

### **Algebra II Honors 10-11<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

**Weighted course**

**Prerequisite: Algebra I and Geometry average grade of 90% or better and Proficient or Advanced score on Keystone Algebra I**

In Algebra 2 Honors, we begin the year with a quick review of some Algebra 1 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 2 Honors including homework and test questions. The level of rigor will be greater in Algebra 2 Honors as well as more concepts being covered with less time spent on each concept.

### **Advanced Algebra and Trigonometry Elective 11-12<sup>th</sup> Grade**

**Full Year  
1 credit**

**Weighted course**

**Prerequisite: Algebra II average grade of 80% or better and Proficient or Advanced score on Keystone Algebra I and Teacher Recommendation**

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.

**Calculus**  
**12<sup>th</sup> Grade**

**Elective**

**Full Year**  
**1 credit**

**Weighted course**

**Prerequisite: Advanced Algebra and Trigonometry average grade of 75% or better and Teacher Recommendation**

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.

**Personal Finance**  
**11-12<sup>th</sup> Grade**

**Grad. Requirement**

**Semester**  
**.5 credit**

This course is geared for seniors and is designed to better equip the student to confront problems he or she will face when he or she is no longer in school. Students taking personal finance should progress to this course after Algebra I, Algebra II, and Geometry. 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 (bankrate.com), insurance, taxes, credit cards, credit reports, credit scores, identity theft, and retirement.

**C++ Programming**  
**12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

**Prerequisite: Advanced Algebra and Trigonometry and Teacher Recommendation**

This course begins with an introduction to computer languages in general and C++ specifically. Students learn programming style, programming techniques, and debugging strategies. Emphasis is placed on application, with the majority of class time spent at the computers writing programs. Topics covered include loops, functions, and arrays.

**Probability and Statistics**  
**11-12<sup>th</sup> Grade**

**Elective**  
**Dual Enrollment**

**Semester**  
**.5 credit**

**Prerequisite: Algebra II and Teacher Recommendation**

This is a course for college-bound seniors. The 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.

## Music

**General Music**

**Cycle Course**

**9**

**Weeks**

**8<sup>th</sup> Grade**

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.

**Band (Marching and Concert)**  
**7-12<sup>th</sup> Grade**

**Elective**

**Full Year**  
**1 credit**

**Marching Band** 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.

**Concert Band** 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.

**Junior High Chorus**  
**7<sup>th</sup>, 8<sup>th</sup> Grade (Homeroom)**

**Elective**

**Full Year**

This is an elective course for students in grades 7-8 and is scheduled for the year. The 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.

**Chorus**  
**9-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

This is an elective course for students in grades 9-12 and is scheduled for the year. The 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.

**Music Appreciation**  
**9-12<sup>th</sup> Grade**

**Elective**

**Semester**  
**.5 credit**

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 will be followed:

Music of the 19<sup>th</sup> & 20<sup>th</sup> Century

Social Dance & Jazz

Tin Pan Alley

The Swing Era

Rock & Roll (1954-1959)

American Pop & British Invasion (60's)

Country, Soul, & Rise of Rock (60's)

Rock Music & Popular Mainstream (70's)

Reggae, Punk, Funk & Disco (70's)

Digital Technology & MTV (80s')

Hip-Hop, Alternative & Today (90's)

## **Science**

**Integrated Science 7**  
**7<sup>th</sup> Grade**

**Required**

**Full Year**

Integrated Science 7 is a continuation of the science modules studied in sixth grade science. Integrated Science 7 is composed of five modules, each lasting approximately 6-9 weeks. The five modules are: (1) Geology, (2) Astronomy, (3) Meteorology, (4) Environmental Science, and (5) Biology.

**Integrated Science 8  
8<sup>th</sup> Grade**

**Required**

**Full Year**

Integrated Science 8 is a combination of the disciplines of physical science, Earth and space science, & life science. A large portion of the course is also dedicated to understanding the scientific method, measurement, laboratory skills and tools, along with technological design and its societal impact. The course prepares the students to take the Science 8 PSSA in the spring.

**Ecology  
9<sup>th</sup> Grade**

**Required**

**Full Year**

**1 credit**

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.

**Biology  
\*9 or 10<sup>th</sup> Grade**

**Required**

**Full Year**

**1 credit**

**\*9<sup>th</sup> grade students must have a teacher recommendation based upon classroom performance and diagnostic tools data.**

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.

**Materials Science  
11-12<sup>th</sup> Grade**

**Elective**

**Full Year**

**1 credit**

**Prerequisite: Biology**

Materials Science is the study of everyday objects and materials. It can be as simple as examining why Pyrex glass is used in baking or exploring the polymers used in packaging a bottle of laundry detergent, or as complex as researching the heat panels used in aerospace engineering. This lab-based STEM course will challenge students to work as investigating problem solvers, study the chemical composition and practical application of metals, ceramics, polymers natural fibers, biological structures and composites, determining how the behavior of materials is directly linked to their fundamental structures and how those structures and properties can be improved through processing making our world a better place to live.

**Chemistry  
10-12<sup>th</sup> Grade**

**Elective**

**Full Year**

**1 credit**

**Prerequisite: Biology and a final average of 75% or better in Algebra I**

Chemistry is designed to give an overview of all chemistry concepts. The content covered includes the scientific method, scientific measurement, matter, atomic theory, bonding, and chemical reactions. 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 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.

**Chemistry II** **Elective** **Full Year**  
**11-12<sup>th</sup> Grade** **1.4 credit**  
**Weighted course**  
**Prerequisite: 85% or better in Chemistry, previously passed or concurrent with Trigonometry, and Teacher Recommendation**  
**Chemistry II is offered during the odd years.**

Chemistry II course is designed to provide students with the foundation of chemistry content and laboratory skills necessary for a general chemistry college course. 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.

**Human Anatomy and Physiology** **Elective** **Full Year**  
**10-12<sup>th</sup> Grade** **1.4 credit**  
**Weighted course**  
**Prerequisite: 80% average or better in Biology and Teacher Recommendation**

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.

**Physics** **Elective** **Full Year**  
**11-12<sup>th</sup> Grade** **1 credit**  
**Weighted course**  
**Prerequisites: 80% in Algebra II and Teacher Recommendation**  
**Physics is offered during the even 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.

**Forensic Science** **Elective** **Full Year**



**12<sup>th</sup> Grade**

**1 credit**

**Prerequisite: 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.

## **SOCIAL STUDIES**

**PA & World  
7<sup>th</sup> Grade**

**Required**

**Full Year**

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.

**Colonial History & The  
Constitution  
8<sup>th</sup> Grade**

**Required**

**Full Year**

In 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. For the second 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.

**Advanced Colonial History & The Constitution  
Year  
8<sup>th</sup> Grade**

**Required**

**Full**

**Prerequisites: 90% average or better in 7th grade social studies class and teacher recommendation**

In 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.

For the second 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; an in-depth study of the Constitution (including amendments); and the 3 branches of our federal government.

Although the topics are the same as the other 8<sup>th</sup> grade classes, the advanced course offers more opportunity for students to develop the critical skills of analysis, synthesis, and evaluation in a more rigorous and reflective academic setting. Students are asked “why?” more in this class and will have to show an understanding of different viewpoints. The advanced class will examine more primary and secondary source documents and will have to demonstrate their knowledge with short answer, essay, and document-based questions.

**World History  
9<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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  
10<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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.

**United States History 2  
11<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

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.

**American Government  
12<sup>th</sup> Grade**

**Required**

**Full Year  
1 credit**

**Weighted course (with Dual Enrollment)**

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.

**Psychology** **Elective** **Semester**  
**12<sup>th</sup> Grade** **.5 credit**  
**Prerequisite: 3.0 or above in High School Social Studies classes**  
**Penn Highlands Dual Enrollment Option**

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.

**Sociology** **Elective** **Semester**  
**12<sup>th</sup> Grade** **.5 credit**  
**Weighted course**  
**Prerequisite: 3.0 or above in High School Social Studies classes**  
**Penn Highlands Dual Enrollment Option**

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.

**AP US History** **Elective** **Full Year**  
**11<sup>th</sup>-12<sup>th</sup> Grade** **1.2 credit**  
**Weighted course**  
**Prerequisite: 3.0 or above in Social Studies classes**

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, reliability, and importance—and to weigh the evidence and interpretations presented in historical scholarship. An AP U.S. History course should thus develop the skills necessary

to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. Students who plan on taking the Advanced Placement exam in May are responsible for all costs related to taking the exam. This includes a penalty fee if the student decides not to take the exam once ordered.

**AP U.S. Government and Politics**                      **Elective**                      **Full Year**  
**11<sup>th</sup>-12<sup>th</sup> Grade**    **1.2 credit**  
**Weighted Course**  
**Prerequisite: Top 12 students in previous year's Social Studies Class and**  
**teacher recommendation**

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behavior. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project.

## **TECHNOLOGY EDUCATION**

**Introduction to American Cinema: The Mechanics of Visual Storytelling**  
**12<sup>th</sup> Grade**    **Elective**                      **Semester**  
**.5 credit**

**Eligible for Dual Enrollment with Penn Highlands**  
**Prerequisite: A final Average of 83% or higher in Honors English 10 and/or**  
**11 (90% or higher in English 10 or 11)**

The course is a thematic and historical study of American cinema. It introduces the history, technology, vocabulary, fundamentals, visual symbolism, style, and realism of American filmmaking. Students will also explore the ever-increasing industry of film-making through various technological lenses to appreciate the number of individuals involved with generating the movies we enjoy watching. Through the exploration of a selection of quintessential films that have made a lasting impression on American society, students will apply a critical lens to scrutinize the execution of the technical elements involved with generating a story visually and how well that film applied those techniques learned in class to achieve the overall impact of the film.

**Invention Convention and Innovation**                      **Cycle Course**                      **9 Weeks**  
**7<sup>th</sup> Grade**

Invention Convention and 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 modeling the invention/innovation process by inventing/innovating new products, processes, systems while exploring the potential impacts on their lives and their communities. Core concepts covered include: 1) invention/innovation and the engineering design process, 2) systems, resources, reverse engineering, mechanisms, processes, and controls, 3) impacts of technology—reduce, reuse recycle, global/national/regional problems and potential solutions, and 4) developing technological creativity and communication—drawing and design, creating scale, digital drawing, patents and presentations.

**Foundations of Technology and Engineering**      **Elective**      **Full Year**  
**9-12<sup>th</sup> Grade**      **1 credit**  
**Prerequisite: Introduction to Technology**

Foundations of Technology and 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: 1) processing and engineering design, 2) materials manufacturing and fabrication—wood, plastic, and ceramics, 3) core technologies—hand tools, power tools, electricity/circuitry, fluid/hydraulics, mechanical, structural, and material reinforcement and development, 4) drafting and design—utilizing CAD to prototype and model

**Exploring Careers in Tech. & Eng.**      **Elective**      **Semester**  
**9-12<sup>th</sup> Grade**      **.5 credit**

Exploring Careers in Technology & Engineering is for any student who is interested in a career in engineering and technology but is not sure what that means. In this fast-paced lab/inquiry-based course, students develop skills on demand while exploring ways technology and engineering are applied through various career fields. Such career fields include: 1) biotechnology, 2) materials processing, 3) remote/autonomous vehicle operation/systems control technology—drones, R/C, 4) modeling/rapid prototyping—CNC, 5) structural design engineering, 6) scientific and technical visualization, & 7) aeronautics/aerodynamic/transportation engineering—endurance gliders, dragster, nonconventional propulsion apparatus

**Digital Design and Rapid Prototyping**      **Elective**      **Semester**  
**9-12<sup>th</sup> Grade**      **.5 credit**

Digital Design and Rapid Prototyping presents drafting, engineering scope, content, and practices through practical applications. Through teams, students apply technology, science, and mathematical concepts to solve engineering design problems by researching, developing, testing and analyzing through the use of criteria such as effectiveness, safety, ethics, and human factors. Students will learn how to apply their creativity, resourcefulness, and mathematical/scientific/technical knowledge in the creation of technological products/systems. Content covered includes: 1) elements of design, 2) fundamentals of design, 3) engineering graphics and modeling-orthographic sketching, isometric drawing, scale drawing, CAD, 4) structural design-modeling, prototyping, 5) product and systems analysis 6) Technology and society

**Robotics Applications and Design  
9-12<sup>th</sup> Grade**

**Elective**

**Semester  
.5 credit**

**Prerequisite: Suggested background in basic coding but not required**

Robotics Applications and Design explores technology, engineering, and design through the context of robotics-remote controlled, autonomous/programmable, and interactive animatronics. Students will learn to design through constraints by solving problems with robotics such as Lego, Vex, Hummingbird/Arduino, as well as remotely controlled vehicles such as drones, R/C cars, and Vex. Students will be exposed to principles of automation to enable them to understand the technology around them so they can make educated decisions. This class is structured to be competitive through the use of teams that compete with various devices to accomplish specific tasks.

**GJCTC Course Offerings**

**HEALTH ASSISTANT**

Course Description:

- Develop medical assisting skills using high-tech equipment found in today’s health care facilities
- Experience live clinical instruction at long-term care facilities
- Practice medical assistant skills in a high-tech SIM lab

Hands-On Training:

- Safety
- Communication
- Emergency care
- Nutrition and hydration
- Human body and diseases
- Professionalism
- Infection control
- Human needs and development
- Moving, lifting, and positioning
- Medical terminology

Certifications:

- ACT National Career Readiness
- American Heart Association Healthcare Provider CPR
- American Heart Association First Aid
- Certified Nurse Aide Licensure
- National Safety Compliance:
  - Safety Orientation for Health Care
  - Bloodborne Pathogens
  - HIPPA Training
  - Heart Saver First Aid
  - BLS Provider CPR
  - BLS Provider AED
- OSHA 10-Hour Healthcare

Students will be able to take their Certified Nurse Aide (CNA) license exam in their senior year of high school, once they have completed the 150-hour course within the program

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

## MACHINE TOOL TECHNOLOGY

**\*This program is available to Greater Johnstown School District students.**

### Course Description:

- Experience a fast paced, high-performance manufacturing environment
- Utilize advanced computer-controlled technology to manufacture precise steel, aluminum, and plastic components
- Create and read blueprints with ACAD and MasterCam

### Hands-On Training:

- Safety
- Layout
- Lathes
- Milling machines
- Metallurgy
- Blueprint reading
- CNC programming

### Certifications:

- National Institute for Metalworking Skills: NIMS
- Machining Level 1
- Machining Level 2
- OSHA 10 Hour General Industry

Machinist and tool and die makers are high priority occupations in Pennsylvania.

### Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
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- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

## SPORTS MEDICINE

**\*This program is available to Greater Johnstown School District students.**

**\*\*This program will be delivered via a new unique hybrid system that will be offered in your school without the daily travel to GJCTC.**

### Course Description:

- Develop skills to assist in rehabilitation services under the supervision of physical therapists, occupational therapists, and other therapeutic professionals.
- Perform routine functions in support of rehabilitation providers, including instruction in roles and responsibilities of rehabilitation providers, basic function of the human body, disabling conditions, therapeutic skills, client management, and communication skills.
- Become a driving force on a professional healthcare team to deliver high-quality patient care.
- Uses nationally recognized curriculum built upon industry standards.

### Hands-On Training:

- Anatomy and Physiology
- Medical Law and Ethics
- Patient Prep and Positioning
- Therapeutic Modalities
- Primary Care
- OSHA Infection Control
- Exercise Science and Prescription

### Certifications:

- First Aid/CPR/AED
- OSHA
- Bloodborne and Airborne Pathogens
- NOCTI Rehabilitation Aide
- In conjunction with the National Academy of

Sports Medicine, students may earn:

- Certified Personal Trainer
- Certified Group Fitness Instructor
- Certified Exercise Specialization
- Performance Enhancement Specialization
- Behavior Change Specialization

- Nutrition Certification

Articulation Agreements: Articulation Agreements are under development.

## COMPUTER CODING AND RELATED INDUSTRIES

**\*This program is available to Greater Johnstown School District students.**

**\*\*This program will be delivered via a new unique hybrid system that will be offered in your school without the daily travel to GJCTC.**

### Course Description:

- Apply technical knowledge and skills to support the design and development of software applications.
- Prepare and interpret process and data models, and develop and structure software components to validate the functionality, usability, and reliability of those components.
- Validation skills will include testing and debugging. System and user documentation will be performed throughout the process, as well as customer support practices.

### Hands-On Training:

- Information and concepts
- Ethics, legal compliance, and security
- User documentation and technical writing
- Digital solutions
- Analyzing programming problems
- Project management

### Certifications:

- Microsoft Technology Associate
- Internet and Computing Core
- VR/AR Unity
- NOCTI Computer Programming

Articulation Agreements: Articulation Agreements are under development.

## WELDING

### Course Description:

- Use advanced fabrication equipment and welding techniques to build, assemble, and repair metal components
- Read blueprints to meet critical design specifications
- Develop the confidence, work ethic, and team cooperation necessary for a career in fabrication

### Hands-On Training:

- Safety
- Weld symbol interpretation
- Gas metal arc welding
- Gas tungsten arc welding
- Manual plasma arc cutting
- Welding and drawing
- Shielded metal arc welding
- Flux cored arc welding
- Oxyfuel gas cutting
- Visual examination, inspection, and testing

### Certifications

- ACT National Career Readiness
- American Welding Society SMAW: 1G, 2G, 3G, 4G
- American Welding Society GMAW: 1G, 2G, 3G, 4G
- American Welding Society FCAW: 1G, 2G, 3G, 4G
- OSHA – 10 Hour General Industry
- SP2 Welding Society

### Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

## CONSTRUCTION TRADES

### Course Description:

- Construct building projects from blueprints to completion
- Explore and develop techniques in Carpentry, Masonry, Electrical, Plumbing, and an introduction to HVAC



- Operate a wide range of professional hand, power, and air tools
- Uses nationally recognized curriculum built upon industry standards

Hands-On Training:

Safety  
 Electrical  
 HVAC  
 Energy Efficiency  
 Blueprints  
 Roofing  
 Flooring  
 Site Layout  
 Carpentry  
 Masonry  
 Plumbing  
 Framing  
 Hand, Power and Air Tools  
 Drywall

Certifications:

NCCR Certifications:  
 Core Curriculum  
 Construction Technology  
 ACT National Career Readiness  
 SP2 Construction Safety  
 OSHA – 10 Hour Construction

Articulation Agreements:

- Commonwealth Tech Institute – Credits Given: 15
- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

**COLLISION REPAIR AND REFINISHING**

Course Description:

- Use advanced equipment and techniques found in professional auto collision repair companies
- Design, prepare, paint, and refinish vehicle surfaces
- Reconstructing them back to pre-accident condition
- Graduates are prepared for ICAR Certification, immediate employment, and further education.

Hands-On Training:

- Safety
- Business fundamentals
- MIG/GMAW and STRSW
- Structural and non-structural
- Mechanical and electrical systems
- Painting and refinishing

Certifications:

- Student ASE Non-Structural Repairs
- Student ASE Painting and Refinishing
- Student ASE Mechanical and Electrical Systems
- SP2 Collision Repair Safety Certificate
- SP2 Collision Pollution Prevention
- Automotive Safety Inspection License
- ACT National Career Readiness
- OSHA 10-Hour General Industry

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

**AUTOMOTIVE TECHNOLOGY**

Course Description:

- Use advanced equipment and techniques found in professional auto collision repair companies
- Design, prepare, paint, and refinish vehicle surfaces
- Reconstructing them back to pre-accident condition
- Graduates are prepared for ICAR Certification, immediate employment, and further education.

#### Hands-On Training:

- Vehicle maintenance services
- Steering and suspension systems
- Braking systems
- Heating and air conditioning systems
- Engine mechanical, cooling, and exhaust systems
- Electrical systems
- Engine performance

#### Certifications:

- ACT National Career Readiness
- Air Conditioning Certification
- ASE Student Certification
- PA State Inspection License
- SP2 Safety Training
- OSHA 10-Hour Automobile

#### Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

### **DIESEL TECHNOLOGY**

**\*This program is available to Greater Johnstown School District students.**

#### Course Description:

- Analyze and repair complex electric, hydraulic, and diesel fuel systems for a variety of heavy equipment
- Troubleshoot, repair, and assemble diesel and gas powered engines and machinery
- Use equipment and techniques found in professional heavy equipment facilities

#### Hands-On Training:

- Safety
- Suspension and steering
- Preventative maintenance
- Fuel system
- Cooling system
- Brake systems
- Tools, fabrication, and hardware
- Driveline
- Air intake and exhaust systems
- Electrical/electronic

#### Certifications:

- S/P2 Safety and Pollution Prevention Training
- ASE Student Certification
- PA State Inspection Course
- Section 609 Mobile Air Conditioning Certification
- OSHA 10-Hour General Industry

\*Students may also qualify to participate in the Forklift Safety Training Program

#### Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

### **LABORATORY TECHNOLOGY**

**\*This program is available to Greater Johnstown School District students.**

#### Course Description:

- Analyze and repair complex electric, hydraulic, and diesel fuel systems for a variety of heavy equipment
- Troubleshoot, repair, and assemble diesel and gas powered engines and machinery
- Use equipment and techniques found in professional heavy equipment facilities

#### Hands-On Training:

- Comprehensive safety training
- Extensive skills training
- Training on equipment found in professional labs

#### Certifications:

- ACT National Career Readiness

- First-Aid Certification
- Heart Saver First Aid
- Heart Saver CPR
- Heart Saver AED
- OSHA 10-hour Healthcare

There are over 1,600 life science and biotech-related companies in Pennsylvania.

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

**EARLY CHILDHOOD EDUCATION**

**\*This program is available to Greater Johnstown School District students.**

Course Description:

- Prepare young children for educational success
- Research, create, and present developmentally appropriate learning material and activities for children
- Daily interaction with children

Preschool teachers are most often employed in child day care services, religious organizations, local government educational services, and private educational services.

Hands-On Training:

- Professionalism
- Health and safety
- Learning environment
- Child development
- Classroom management and positive guidance
- Program partnerships
- Standard curriculum and assessment
- Learning activities
- Clinical experience
- Crime and violence prevention

Certifications:

- ACT National Career Readiness
- Child Development Associate (CDA)
- Mandated Reporter
- CPR/First Aid
- New Staff Orientation
- Heart Saver First Aid
- Heart Saver CPR
- Heart Saver AED
- OSHA 10- Healthcare

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

**COSMETOLOGY**

Course Description:

- Experience a full-service interactive salon environment
- Use professional salon techniques to provide a full range of hair, nail, and skin care services
- Creating and develop unique styles to exceed client expectations

Hands-On Training:

- Safety and sanitation
- Hair shaping (cutting)
- Hair coloring
- Temporary hair removal
- Nail technology
- Trichology and chemistry
- Cosmetic dermatology
- Professional business practices

- PA cosmetology law
- Hair styling
- Chemical texturizing
- Makeup

Certifications:

- The Cosmetology course assists students in preparing for and passing the PA State Board of Cosmetology licensing exam. Students must complete

1,250 satisfactory hours of instruction to be eligible for the exam.

- ACT National Career Readiness
- OSHA 10-Hour Cosmetology

- SP2 Cosmetology Safety

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

## **CULINARY ARTS**

Course Description:

- Work side-by-side with a professional chef to create gourmet meals and desserts for catering events
- Plan, prepare, and serve meals for upscale events and casual dining
- Create and produce food with an artistic presentation

Culinary Arts is the #1 employer in the nation.

Hands-On Training:

- Safety
- Sanitation
- Purchasing and receiving
- Storage
- Nutrition
- Cutting tools and utensils
- Standardized recipe preparation
- Front-of-house procedures
- Basic baking practices
- Plan and cost menus

Certifications:

- ACT National Career Readiness
- ServSafe Certification
- ProStart Certificate of Completion
- OSHA 10-Hour Culinary Arts
- SP2 Workplace Safety
- SP2 Food Safety

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

## **GRAPHIC AND DIGITAL MEDIA DESIGN**

Course Description:

- Produce a full-range of creative client projects
- Create illustrations, logos, and dynamic visuals to communicate through print and digital media
- Use the same advanced equipment, software, and techniques as professional graphic designers

About three in ten designers are self-employed; many do freelance work in addition to holding a salaried job in design or another occupation.

Hands-On Training:

- Safety
- Drawing and illustration
- Color theory and application
- Digital imaging
- Design, layout, and production
- Typography
- Digital photography
- Professional practices

Certifications:

- ACT National Career Readiness
- Adobe Certified Associate Certification:
  - Adobe Illustrator
  - Adobe Photoshop
- Osha 10-Hour General Industry

Articulation Agreements:

- Penn Highlands Community College Degree: Associates of Applied Science Technology Management - Credits Given: 15
- Mount Aloysius College Degree: Associates of Science in Applied Technology - Credits Given: 24-30
- St. Francis University: Degree: Associates of Science in Applied Science Health Professions Technology – Credits Given: 27

