

# FARRELL AREA JUNIOR/SENIOR HIGH SCHOOL COURSE OF STUDY GRADES 9 – 12



## NONDISCRIMINATION POLICY

All activities and courses at the Farrell Area School District are available to all students as required by Title XI, Title IX, and Section 504. If there are prerequisites, they are based on ability and aptitude, not on race, color, national origin, sex, or any handicapping conditions. If you are physically or mentally handicapped, you may qualify for special services and instruction, and equipment modifications so you can successfully complete the course or participate in any activity. If you have any questions about equal educational opportunities or complaints of harassment or discrimination, contact Farrell Jr. /Sr. High School 1700 Roemer Blvd., Farrell, PA 16121 (724) 509-1245.

*2018-2019*

# Foreword

The Mission of the Farrell Area School District is to work collaboratively within the community to foster a dynamic standards-based curriculum within a safe, educationally managed environment. Facilitated by a caring professional staff, opportunities abound for all students to become actively engaged as productive, responsible life-long learners empowered to meet the global changes and needs of a culturally diverse society.

Within this handbook are the courses available at Farrell Area High School along with a description for each. This handbook is a guide to your academic path while at Farrell Area High School. Discuss your future goals with those whom you respect and whose opinions you value. Keep in mind that the educational path you select now will greatly influence your future. By carefully reviewing this handbook, you will have the opportunity to select the courses that will best assist you in obtaining your goals.

## **Note: College Bound Students and Athletes**

Many selective colleges across the country require a *lab science* and 2-3 years of a *foreign language* on the student's academic record in addition to the standards number of core academic course (those that are academic in nature, excluding vocational and career courses). Please use these considerations in determining future schedules. Also, remember to check with the colleges/technical/trade schools that you are interested in regarding their admission requirements. It is extremely important to explore post-secondary admission requirements early on in high school to prevent inadequate preparation for admission.

NCAA (National Collegiate Athletic Association) and college admission standards are constantly subject to change. Therefore, it should be advised that *college bound students*, especially those who are considering playing college athletics, are required *16 core courses* and a *lab science* to be eligible for their freshman year. **In order to participate in Division I or II athletics, students MUST register with the NCAA. They may do this by referring to the following website: [www.eligibilitycenter.org](http://www.eligibilitycenter.org).**

## **Non-discrimination Policy of the Farrell Area School District**

The Farrell School District is an equal opportunity education institution and will not discriminate based on sex, race, color, national origins, religion, marital status or handicap in its activities, programs or employment policies as required by Title IX, Title VI and Section 504.

For information regarding services, activities, programs and facilities that are accessible to and usable by handicapped persons, contact Mr. John Seybert, Director of Special Education Services at (724) 509-1216.

### **IMPORTANT...PLEASE NOTE.**

#### ***INTRODUCTION...Parents/Guardians and students...Please read***

*The courses and programs outlined in the following pages of this booklet are designed to provide you a well-rounded and challenging education. All decisions regarding course structure, curriculum design, assessment and planning are taken very seriously. The FASD staff and administration have spent significant time planning and implementing these decisions. Please take time to review the process and understand that student success is paramount.*

#### **IMPORTANT: STOP – PLEASE NOTE - SCHEDULE WISELY**

*Decisions reached by you and your parents in course selection will be considered a firm commitment with the school. Course changes in the fall of the school year are discouraged. NOTICE: DROPPING/ADDING AN ELECTIVE WILL ONLY BE ALLOWED IF THE CHANGE WILL NOT AFFECT YOUR CORE COURSES. \*(Specific questions relating to program options or course selections should be addressed to the guidance counselor.)*

\*Careful thought and consideration should be given to the selection of challenging and rewarding courses for the 2017-2018 school year. Decisions about course selections are important due to their long-range effects on educational and occupational opportunities.

\*NO **REQUIRED** COURSE MAY BE DROPPED AFTER THE FIRST 2 WEEKS OF THAT COURSE UNLESS THERE ARE EXTENUATING CIRCUMSTANCES AND THE PRINCIPAL APPROVES.

Student requests for schedule changes may require parent signatures. School officials reserve the right to place a student in a class or classes they regard as appropriate for that student if he or she is uncertain or unrealistic about his/her interests and/or abilities. Should there be insistence by the parents/guardians to place a student in a course deemed by school officials to be inappropriate, parents/guardians will be asked to sign a statement which states their insistence of placement other than that deemed appropriate by school personnel and accepting any liability for this decision.

# Farrell High School Graduation Requirements

## Class of 2020 & Beyond

4 English credits

4 Social Studies credits

4 Math credits

3 Science credits

1 PE credits

.5 Health credit

.5 Computer Applications/Technology credit

2 Years of a Foreign Language

4 Elective credits

1 Graduation Project credit

**24 Total Credits Required for Graduation**

## 2018-2019 Farrell Upper Middle/ High School PROPOSED COURSES

### English/Language Arts:

|            |                   |                 |                        |
|------------|-------------------|-----------------|------------------------|
| English 7  | English 7 Honors  | Reading 7       | Reading 7 Honors       |
| English 8  | English 8 Honors  | Language Arts 8 | Language Arts 8 Honors |
| English 9  | English 9 Honors  |                 |                        |
| English 10 | English 10 Honors | Journalism      |                        |
| English 11 | Honors English 11 | Journalism      |                        |
| English 12 | Honors English 12 | *AP English     | Journalism             |

### Mathematics:

|                  |             |                            |            |                            |              |
|------------------|-------------|----------------------------|------------|----------------------------|--------------|
| Math 7           | Pre-Algebra |                            |            |                            |              |
| Math 8           | Pre-Algebra | Academic Algebra           | Algebra I  |                            |              |
| Academic Algebra | Algebra I   | Geometry                   | Algebra II |                            |              |
| Academic Algebra | Algebra I   | Geometry                   | Algebra II |                            |              |
| Academic Algebra | Algebra I   | Algebra II                 | Geometry   | Algebra III / Trigonometry |              |
| Algebra II       | Geometry    | Algebra III / Trigonometry |            | Calculus                   | *AP Calculus |

### Science:

|                        |                  |                            |                   |                    |
|------------------------|------------------|----------------------------|-------------------|--------------------|
| Science 7 (Integrated) |                  |                            |                   |                    |
| Science 8 (Integrated) |                  |                            |                   |                    |
| Science 9 (Integrated) | Biology I / Lab  | Robotics                   |                   |                    |
| Biology I / Lab        | Biology II / Lab | Chemistry in the Community | Chemistry I / Lab | Chemistry II / Lab |
| Robotics               |                  |                            |                   |                    |
| Biology I / Lab        | Biology II / Lab | Chemistry in the Community | Chemistry I / Lab | Chemistry II / Lab |
| Physics Lab            | Robotics         |                            |                   |                    |
| Biology I / Lab        | Biology II / Lab | Chemistry in the Community | Chemistry I / Lab | Chemistry II / Lab |
| Physics Lab            | Robotics         | *AP Biology                | *AP Chemistry     |                    |

### Social Studies:

|                             |                     |                      |
|-----------------------------|---------------------|----------------------|
| Geography 7                 | World Cultures 8    | Civics / Economics 9 |
| African American History 10 | American History 11 | World History 12     |

### Foreign Languages:

|                      |           |           |           |           |
|----------------------|-----------|-----------|-----------|-----------|
| Intro to French (8)  | French 1  | French 2  | French 3  | French 4  |
| Intro to Spanish (8) | Spanish 1 | Spanish 2 | Spanish 3 | Spanish 4 |

### Physical Education:

|          |          |        |            |
|----------|----------|--------|------------|
| Phys. Ed | Swimming | Health | Physiology |
|----------|----------|--------|------------|

### Electives:

#### Fine Arts:

|                      |                    |       |              |
|----------------------|--------------------|-------|--------------|
| Middle School Band   | High School Band   |       |              |
| Middle School Chorus | High School Chorus | Piano |              |
| Intro to Art         | Art 1              | Art 2 | Art Projects |

#### Career Education:

|                         |                            |                         |
|-------------------------|----------------------------|-------------------------|
| Career/ Life Management | Financial Fitness for Life |                         |
| Keystone Prep           | Social Skills class        | Family Consumer Science |

#### Technical Education:

|             |                             |            |             |
|-------------|-----------------------------|------------|-------------|
| Keyboarding | Introduction to Computers 8 | Computer I | Photography |
|-------------|-----------------------------|------------|-------------|

#### Multimedia

#### Industrial Arts

|      |               |        |         |          |         |
|------|---------------|--------|---------|----------|---------|
| CADD | Intro to Wood | Wood I | Wood II | Wood III | Wood IV |
|------|---------------|--------|---------|----------|---------|

**Dual Enrollment Opportunities**

**\*AP Courses Available**

## **S.T.E.A.M. Project**

**Entrepreneurship Academy @ Lindenpointe**

**Grade 12**

**3 elective credits at Farrell Area School District**

**12:30pm – 2:45pm Monday – Thursday at Lindenpointe Facility,  
Hermitage, Pa.**

**S.T.E.A.M. Entrepreneurship Academy will develop 21<sup>st</sup> Century skills through a project based entrepreneurial experience for high school seniors.**

**This will be accomplished by blending core academic standards with customized learning opportunities in the fields of Science, Technology, Engineering, Arts, and Mathematics (STEAM) through collaborations with K-12 educators, higher education and business partners.**

Since there are a number of courses listed, it may be difficult for you to select a sequence to follow from grade 9 through grade 12. Teachers and guidance counselors understand this problem, they have suggested sequences for you to choose depending on your interests, abilities, and career plans. (See pages 12, 13). No matter which direction you decide to go after graduation – college, technical school, military service, business school, job or homemaker – there are courses offered that can help you to be well prepared. **However, understand that your participation, attendance, effort and attitude play a significant role in your success in those chosen career paths.**

Keeping these thoughts in mind, relying upon experience with the past, and projecting into the future, the following recommendations are made to you. **Grade 12 Only (An application process is required and students must have a 3.0 or higher to qualify.)**

S.T.E.A.M. Entrepreneurship Academy will develop 21<sup>st</sup> Century skills through a project-based entrepreneurial experience for high school seniors. This will be accomplished by blending core academic standards and customized learning opportunities in the fields of Science, Technology, Engineering, Arts and Mathematics (STEAM) through collaborations with K12 educators, higher education and business partners.

### **Advanced Placement Courses**

Advanced placement courses are offered in the area of Social Studies, Math, English, and Science. These courses are offered to those students who are academically qualified, have teacher recommendations, and are recognized as needing the challenging experience. Students participating in the Quest program are also eligible to elect advanced placement courses. Most colleges grant credit for participation in advanced placement courses when the student achieves college level standards on the required A.P. examination. **All students taking an AP course are required to take the respective AP Exam upon course completion.**

### **Dual-Enrollment opportunities are available**

Prerequisite: 11<sup>th</sup> or 12<sup>th</sup> Grade Student with a cumulative 3.0 GPA

Dual enrollment is described as an opportunity that allows high school students to earn college credits for courses they have taken through a postsecondary institution while attending high school.

## Chapter 4 Requirements

# The High School Graduation Project Requirement

According to the Pennsylvania Department of Education Regulations

### SEC 4.24 HIGH SCHOOL GRADUATION REQUIREMENTS

- (A) Each school district (including charter schools) shall specify requirements for graduation in the strategic plan under 4.13 (relating to strategic planning). Requirements shall include course completion and grades, completion of culminating project and results of local assessments aligned with academic standards.

...The purpose of the culminating project is to assure the students are able to apply, analyze, synthesize and evaluate information and communicate significant knowledge and understanding...to establish rigorous academic standards and assessments to facilitate the improvement of student achievement and to provide parents and communities a measure by which school performance can be determined...prepare students for adult life by attending to their intellectual and development needs...at their highest level possible [so they]...can become self-directed, life-long learners and responsible, involved citizens.

## Objective of Graduation Project Requirement

In order to graduate from Farrell Senior High School, every student must satisfactorily complete a graduation project as required by the Pennsylvania Department of Education Regulations. The Farrell Area School District feels the learning provided by this experience should be a part of every student's educational career. The project should demonstrate the district's high standard of student performance and involve the student in problem solving, self-directed learning, decision making, public speaking, and individual research while investigating a specialized area of interest.

This booklet explains the requirement and should be used as the guide for all decision-making regarding the requirement. A table of contents has been provided to help you move through the booklet. One working copy will be issued per student. Students must refer to this booklet for the guidelines, time line, procedures, and forms. Students who prefer an electronic copy will receive one by providing a snap drive or an email address.

The Farrell Area School District Graduation Project, which applies to all students, supports diversity of leaning styles and encourages personal ownership of a task. Of course, it promotes self-esteem and self-confidence, through successful completion; but it also demands accountability and responsibility. All of these qualities are essential for the student to survive in a post high school environment.

# Evidence of Preparation

Name \_\_\_\_\_

Sophomore year activities:

- \_\_\_\_\_ Completion of Inventory Analysis by due date (6)
- \_\_\_\_\_ Completion of Transcript Analysis by due date (6)
- \_\_\_\_\_ Meeting with coordinator as scheduled with project log (4)
- \_\_\_\_\_ Sophomore project log submitted by due date (10)

Junior year activities

- \_\_\_\_\_ Career paper completed by due date (6)
- \_\_\_\_\_ Initial advisor meeting by due date (4)
- \_\_\_\_\_ Preliminary declaration by due date (6)
- \_\_\_\_\_ Meeting with coordinator as scheduled with project log (4)
- \_\_\_\_\_ Junior project log submitted by due date (10)

Senior year activities

- \_\_\_\_\_ Final declaration by due date (6)
- \_\_\_\_\_ At least two advisor meetings (10)
- \_\_\_\_\_ Meeting with coordinator as scheduled with project log (8)
- \_\_\_\_\_ Senior project log submitted by due date (10)
- \_\_\_\_\_ Presentation completed as scheduled (6)
- \_\_\_\_\_ Final student report completed (4)

\_\_\_\_\_ **Total**

## Final Grade Computations:

Your final grade will be computed using the following weights.

|                               |     |
|-------------------------------|-----|
| Career Paper                  | 15% |
| Project Presentation          | 30% |
| Volunteer Log                 | 20% |
| Evidence of Preparation       | 20% |
| Transcript/Inventory Analysis | 15% |

## Late Entry Students

Students who enroll in Farrell High School after the 4<sup>th</sup> nine weeks of sophomore year may have adapted due dates for some or all aspects of the senior project, dependent upon the student's arrival and abilities. This adaptation will be considered on an individual basis with the student. Students should recognize that they are best served by attempting to complete work as soon as possible.



## Language Arts Courses

### English 9 – 1 credit

#### **Prerequisite: Promotion from 8<sup>th</sup> Grade to 9<sup>th</sup> Grade**

This course is designed to be an introduction to high school English and oral presentations. Emphasis will be placed on reinforcing the Common Core State Standards and eligible content. Areas of concentration will include, but are not limited to, analyzing author's purpose, voice, tone, and mood and citing evidence from the text to reinforce ideas. Writing will be emphasized and centered on the argumentative or position paper using the Writing Assessment Domain Scoring Guide, which encompasses focus, content, organization, style and conventions. Students will refine skills related to responding, explaining and assessing literature. Students will learn the required skills for success in High School English.

### English 9 Honors – 1 credit (weighted)

#### **Prerequisite: Proficient completion of English 8 with an 85% or higher, and a minimum of a Proficient score on the PSSA ELA Exam**

This course is a survey of writing and literature designed for students who would like to be challenged beyond the average English class. Though this course covers all the basic components of English 9, honor students will delve deeper into the assigned readings, employing critical thinking and analytical skills. In addition to the material covered in English 9, students will be exposed to a variety of additional literature from all genres and will also be expected to complete independent readings.

### English 10 (Keystone Exam Course) – 1 credit

#### **Prerequisite: Successful completion of English 9**

In this course the students study literature from around the world. Each unit focuses on critical thinking, relationships between the literature itself and universal questions. Students are introduced to myths, fables, science fiction, and short stories with an emphasis in world literature. Students are required to read Macbeth, The Crucible, and the Scarlet Letter in succession and will be performing critiques and conferences on these specific novels and plays. Students will complete and present a formal research papers with parenthetical citations using the MLA format. Oral communication will focus on speech, content and delivery. This outline is subject to change and assignments will vary, depending on the student's previous experience and learning abilities. This course is designed also meets the needs of learning support students.

At the end of this course, students are expected to demonstrate satisfactory performance on the Literature Keystone Exam.

## **English 10 Honors (Keystone Exam Course) – 1 credit (weighted)**

### **Prerequisite: 85% or better in English 9**

This course will cover all aspects of English 10. In addition, Honor students will read supplementary classical novels and plays to ensure students further develop literary analysis skills. Students will complete a variety of informational, persuasive, and creative writing projects.

## **English 11 – 1 credit**

### **Prerequisite: Successful completion of English 10**

In this course, students will cover various pieces of Contemporary World Literature. Emphasis will be placed on drama and prose genres; however, students will cover non-fiction, novel and poetry as well. Students will be expected to master concepts in literature such as plot, setting, character development, theme, point of view, mood and tone. Additionally, controversial issues addressed by these works and other contemporary pieces are debated through oral and written pieces created by the students throughout the year. In their essays and discussions, students may relate a work to its historical or social circumstances, trace a symbol through a work or works, or consider a moral or philosophical question. This course highlights grammar and composition, with additional emphasis placed on the Pennsylvania Writing Assessment Domain Scoring Guide. Students will also complete and present a research project using MLA format with appropriate documentation. Students enrolled in this course must demonstrate satisfactory performance on the Literature Keystone Exam.

## **English 11 Honors – 1 credit**

### **1.1 Weight**

### **Prerequisite: 85% or better in English 10 Honors and a minimum of a Proficient score on the Literature Keystone Exam**

This course is designed for juniors who would like to be challenged beyond the regular English 11 course. American literature is surveyed historically with a detailed study of selected prose or poetry of the specific period. Mechanical skills and grammar concepts are studied through the student composition, which will employ the standard manuscript format and utilize the criteria of a good paragraph. A research paper is also written using a standard format and varied research techniques and sources.

## **English 12 – 1 credit**

### **Prerequisite: Successful completion of English 11**

This course is designed to provide an analytic and historical study of British, World, and Modern Literature with a central focus on heroes and mythology to promote literary study. Additionally, controversial issues addressed by these works and other contemporary pieces are debated through oral and written pieces created by the students throughout the year. In their essays and discussions, students may relate a work to its historical or social circumstances, trace a symbol through a work or works, or consider a moral or philosophical question. Research skills will be an integral part in this course. Students are expected to master MLA format and will be introduced to APA format. Speech communication will also be covered.

## **English 12 Honors – 1 credit**

### **1.1 Weight**

### **Prerequisite: 85% or better in English 11 and a minimum of a Proficient score on the Literature Keystone Exam**

Honors English 12 is designed for the academically talented or gifted student. This course views the literature, including drama, poetry, and prose of the Western and British world from both broad historical and thematic perspectives. Additionally, controversial issues addressed by these works and other contemporary pieces are debated through oral and written pieces created by the students throughout the year. In their essays and discussions, students may relate a work to its historical or social circumstances, trace a symbol through a work or works, or consider a moral or philosophical question. Students are expected to master MLA format and will be introduced to APA format. Speech communication will also be covered. Advance analytical thinking and writing skills will be stresses, with emphasis placed on a range of in-class and take-home analytical essays. A mastery of writing skills is imperative. Students are also expected to participate in class discussions.

## **Language Arts Electives**

### **Journalism – 1 credit**

The course will involve extensive reading in terms of current events, the history of journalism, present practices, and likely futures of the field. Students will also write on a daily basis. This will include informal writing on blogs and in response to readings, and formal writing, producing a variety of reporting for both an online student news and the local weekly. Finally, students will be expected to interact through participation in whole class discussions of news topics, working in small groups, and informally assisting one another in various aspects of news production. Students in this course will collaboratively produce a monthly school newspaper.

# Math Courses

## Keystone Prep - .6 Credits

### Grade Placement: 9

Prerequisite: None

This course is a data driven review of Keystone Exam Assessment Anchors and Eligible Content. The course will use data from the Keystone Exam to identify areas of strength and weakness for individuals as well as the class and then provide specific content area practice in order to further develop Algebraic skills. This class meets three times per week.

## Academic Algebra – 1 credit

### Grade Placement: 9-10

Prerequisites: Students enrolling in this class shall have completed Math 8 with a 75% or lower or have a Basic or Below Basis score on the PSSA Test.

Academic Algebra is a curative course to develop students' fluency with linear, quadratic and exponential functions. The critical areas of instruction involve deepening and extending students' understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. In addition, students engage in methods for analyzing, solving, and using exponential and quadratic functions. Some of the overarching ideas in the Algebra I course include the notion of function, solving equations, rates of change and growth patterns, graphs as representations of functions, and modeling.

## Algebra I (Keystone Exam Course) – 1 credit

### Grade Placement: 8 – 11

Prerequisites: Successful completion of Academic Algebra or being Proficient or Advanced on the 8<sup>th</sup> Grade PSSA or teacher recommendation

This course is the foundation for high school mathematics. It is the bridge from the concrete to the abstract study of mathematics. Topics to be covered include simplifying expressions, evaluating and solving equations, inequalities, variables, order of operations, evaluating expressions, properties of real numbers, adding, subtracting, multiplying, and dividing real numbers, solving equations and inequalities, rates, ratios, percent, and proportions, writing and graphing functions, linear functions, polynomials, scientific notation and properties of exponents, central tendency, histograms, box and whisker plots, permutations and combinations, and theoretical and experimental probability.

Students enrolled in this course must demonstrate satisfactory performance on the Algebra I Keystone Exam and submit a portfolio/notebook.

### **Algebra Enrichment – .2 credits**

#### **Grade Placement: 9 – 12**

Description: Any student who is not Proficient or Advanced on the Algebra Keystone **MUST** take this course. Taking this course does NOT fulfill a math credit towards graduation.

### **Algebra II – 1 credit**

#### **Grade Placement: 9-12**

Prerequisites: Successful completion of Algebra I

This course is a continuation of Algebra I. Topics to be covered include properties of real numbers, solving equations and inequalities, functions, equations, and graphs, linear systems, quadratic equations and functions, polynomials and polynomial functions, radical and rational exponents, sequence and series, probability and statistics, matrices, exponential and logarithmic functions, and rational functions.

### **Geometry – 1 credit**

#### **Grade Placement: 9 – 12**

Prerequisites: Successful completion of Algebra II

This course develops a structured mathematical system employing both deductive and inductive reasoning. It includes plane, spatial, coordinate, and transformational geometry. Algebraic methods are used to solve problems involving geometric principles. Topics include, but not limited to measurement, area, properties of polygons, parallel and perpendicular lines, triangles, quadrilaterals, calculations of area and volume, and formal and informal proof, simplifying expressions, evaluating and solving equations and inequalities, and graphing linear and quadratic functions and relations. This course teaches the student to form mental pictures of geometric figures and learn about various features of those figures.

## **Algebra III/ Trigonometry – 1 credit**

### **1.1 Weight**

#### **Grade Placement: 11-12**

Prerequisites: Successful completion of Geometry

This course extends the topics first seen in Algebra II and introduces basic trigonometry concepts. Students in this course will study linear relations and functions; conic sections; circular functions, graphs and inverses of trigonometric functions; theory of equations; matrices and vectors; and practical applications. A graphing calculator (TI-83 or 84) is **REQUIRED**.

## **Calculus – 1 credit**

### **1.2 Weight**

#### **Grade Placement: 11-12**

Prerequisites: 75% or better in Algebra III/Trigonometry or Teacher Recommendation

This course is for college bound students who plan on pursuing a math related career. Students are expected to spend a great deal of time on outside preparation, as homework assignments are very time consuming. Students will communicate mathematical solutions both orally and with the written word; use technology to help solve problems, interpret results, and verify conclusions; and determine the reasonableness of solutions. A graphing calculator (TI-83 or 84) is **REQUIRED**.

# Science Courses

## Keystone Prep - .6 Credits

### Grade Placement: 9

Prerequisite: None

This course is a data driven review of Keystone Exam Assessment Anchors and Eligible Content. The course will use data from the Keystone Exam to identify areas of strength and weakness for individuals as well as the class and then provide specific content area practice in order to further develop Biology skills. This class meets three times per week.

## Science 9 – 1 credit

### Grade Placement 9

Prerequisite: Students who were Proficient, Basic, or Below Basic on their 8<sup>th</sup> Grade Science PSSA Test

Ninth grade science is an integrated science course that provides students with laboratory experiences, furthers their fundamental science inquiry skills and exposes them to a variety of science topics with an emphasis in foundational content for the Keystone Biology Assessment. Major areas of study will come from the sciences of Chemistry (water, changes in matter, chemical energy, and organic polymers), Biology (cells and organ systems diversity) and Ecology. The course will continue to develop students' confidence in the study of science and to develop their science literacy. Science 9 includes the following components: laboratory experiences, scientific methods and application of technology.

## Biology – (Keystone Exam Course) 1 credit

### Grade Placement: 9 & 10

Prerequisite: Students who attain an Advanced status on their 8<sup>th</sup> Grade Science PSSA test or the successful completion of Science 9

Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on two general biological principles:

- a) Cells and cellular processes
- b) Continuity and unity of life

This course introduces the diversity of living organisms, their structure, function, and evolution. Lectures, discussions, dissections, note taking, projects, and laboratories are also part of the course. At the end of the course students will be administered the PA Keystone Biology Exam.

## **Biology Enrichment – .2 credits**

**Grade Placement: 9 – 12**

Description: Any student who is not Proficient or Advanced on the Biology Keystone **MUST** take this course. Taking this course does NOT fulfill a science credit towards graduation.

## **Biology II – 1 credit**

**Grade Placement: 10 – 12**

Prerequisite: Students who have successfully completed Biology, Chemistry and Physics

This class is intended for students that have an interest in the extension of the biological sciences. This course presents the principles of population ecology and the relationships between people and their environment. This course also discusses diverse perspectives on controversial issues as well as organismal diversity and challenges in the environment. This course will provide formal and field activities for opportunities for hands-on learning. This course will involve homework approximately four times per week, discussions, lecture, labs, projects and possible dissections. Biology II is a course based on regular laboratory and field investigations that include a study of structures and functions of living organisms and their interactions with the environment. Students enrolled in Biology II explore the functions and processes of cells, tissues, organs, and systems within various species of living organisms and the roles and interdependencies of organisms within populations, communities, ecosystems, and the biosphere. Students work with concepts, principles, and theories of the living environment. In addition, students enrolled in this course are expected to: (1) gain an understanding of the history and development of biological knowledge; (2) explore the uses of biology in various careers; and (3) investigate biological questions and problems related to personal needs and societal issues.

## **Chemistry in the Community – 1 credit**

**Grade Placement: 10 – 12**

Prerequisite: Completion of Biology

This course is recommended for students who do not necessarily desire to further their education either in a technical or degree program after high school. This course is more for a better understanding of chemical processes that occur in life experiences. Participation in this Basic Chemistry course will require the student to utilize mathematics and a strong background is recommended. You will be required at times to use a calculator. **You need to have your own.** A graphing calculator (TI-83 or 84) is SUGGESTED.



**Chemistry/Lab – 1 credits**  
**1.2 Weight**

**Grade Placement: 10 – 12**

Prerequisite: Students who have completed Biology with a 75% or better

This course is recommended for students who desire to further their education either in a technical or degree program after high school. Participation in this Chemistry course will empower the student to utilize mathematics and laboratory exercises to explain the importance of measurements, energy, and structure of matter, bonding, solutions, electrochemistry, equilibrium, and biochemistry. You will be required at times to use a calculator. **You need to have your own.** A graphing calculator (TI-83 or 84) is SUGGESTED.

**Chemistry II – 1 Credit**

**Grade Placement: 10 – 12**

Prerequisite: Students who have successfully completed Biology, Chemistry and Physics

This course is a scientific study of matter and energy, their relation to atomic and molecular structure, and the physical and chemical changes they undergo. Students will review topics covered in Chemistry I and explore them in detail. Advanced topics include atomic and molecular structure, chemical bonding, organic chemistry, chemical equilibrium, acid-base theory, chemical thermodynamics, chemical kinetics, and principles of qualitative and quantitative analysis.

**Physics/Lab – 1 credits**  
**1.2 Weight**

**Grade Placement: 10-12**

Prerequisites: Students who have completed Biology and Chemistry with a 75% or better

This elective course is intended for upperclassmen students that have completed the passing requirements for biology and chemistry. This class is also intended for students that have an interest in the extension of the biological sciences. This course presents the principles of ecology and the relationships between people and their environment. This course also discusses diverse perspectives on controversial issues. This course will provide formal and field activities for opportunities for hands-on learning.

**Robotics - 1 credit (This course does NOT fulfill a Science Credit towards graduation, it is ONLY an Elective Course)**

**Grade Placement: 10-12**

Prerequisites: None

In this course, students take on the roles of mechanical engineers, computer scientists and electrical engineers. Students research dynamics, kinematics and sensors. Subjects such as motion planning and obstacle avoidance, velocity and acceleration, serial chain mechanisms, pneumatic actuators, and drive circuits are covered. Students put knowledge into practice through lab settings where robots are created with teams.

## **Social Studies Courses**

### **Civics – 1 credit**

#### **Grade Placement: 9**

Required for graduation

Civics is a required course for graduation and covers several aspects of government. Civics will explore the origins of the American democratic system while looking at how the constitution embodies the values and purposes set up by the founding fathers. The structure and function of the government will be analyzed on a national, state, and local level while showing how each level is interrelated. This will launch the class into discussing how constitutional values relate to other nations and world affairs. Throughout the course, we will focus on how the people play an active role in government and the importance each citizen contributes to society.

### **African American History – 1 credit**

#### **Grade Placement: 10**

Required for graduation

This course covers the breadth of African American history and begins by looking at the early African Kingdoms of Ghana, Mali and Songhai. Students will then be looking at slavery and the effects that it had on the people involved as well as the country. The Civil war will be discussed in length as well as the Reconstruction after the end of the Civil War. This course will take students all the way to present day and the African American Identity in the 21<sup>st</sup> century.

### **American History – 1 credit**

#### **Grade Placement: 11**

Required for graduation

This course explores the origins of the first inhabitants in North America and how they arrived in this country. The three great civilizations of the Mayas, Aztecs, and the Incas are highlighted. Events in Europe will be studied, the Christian Crusades, the Renaissance, and the Protestant Reformation and how each led to the Age of Exploration. The course teaches the history of the United States from the beginning to the present. It will teach the economic system, the political science system, and diverse cultures of the United States. Social studies skills will be developed using graphs, charts, timelines, tables, pictures, and other graphics.

## **World History – 1 credit**

### **Grade Placement: 12**

Required for graduation

The purpose of the World History course is to develop greater understanding of the evolution of global processes and contacts in different types of human societies from prehistory through today. This understanding is advanced through a combination of factual knowledge and appropriate analytical skills. The course highlights the nature of changes in global frameworks and their causes and consequences, as well as comparisons among major societies.

# Foreign Language Courses

## **Spanish I – 1 credit**

### **Grade Level: 9-12**

Pre-requisites: None

This is a beginning Spanish course for students in grades 9-12, emphasizing the four basic skills: listening, speaking, reading, and writing. The text consists of lessons based on a variety of Spanish-speaking areas with practical application of vocabulary, grammar, and culture. Upon successful completion of course, students should be able to:

1. Say and understand basic phrases in Spanish, ask and answer simple questions, identify objects and animals, express likes and dislikes, talk about the weather.
2. Read and understand short narratives, simple dialogues and poems.
3. Write simple sentences, guided short paragraphs, and simple notes on familiar topics, particularly those related to personal information and routine activities.
4. Recognize and appreciate basic differences within the cultures of Spanish-speaking countries and their own.

## **Spanish II – 1 credit**

### **Grade Level: 10-12**

Pre-requisites: Spanish I, full year credit with a passing grade

This course is a continuation of Spanish I. The four basic skills of listening, speaking, reading, and writing are expanded. Students apply prior knowledge, while increasing their vocabulary, grammar, and culture with the text. Upon successful completion of course, students should be able to:

1. Say and understand phrases in Spanish, ask and answer simple questions, identify objects, indicate location and talk about clothing and shopping, make requests and order food in restaurants, talk about the family.
2. Read and understand narratives, dialogues and poems.
3. Write sentences, guided paragraphs, and notes on familiar topics, particularly those related to personal information and routine activities.
4. Recognize and appreciate differences within the cultures of Spanish-speaking countries and their own.

## **Spanish III – 1 credit**

### **Grade Level: 11-12**

Pre-requisites: C average in Spanish II; others permitted with teacher recommendation

This **1.2-weighted course** is designed for above average language students with a desire to expand on previous skills. Written and oral tests, oral presentations, interviews, compositions, and essays are assessment tools. Grammar includes multiple verb tenses. Reading Spanish short stories is a requirement. Students will be expected to study independently, in addition to the classroom instruction. Upon successful completion of course, students should be able to:

1. Say and understand phrases in Spanish, ask and answer simple questions, identify objects, indicate location and talk about clothing and shopping, make requests and order food in restaurants, talk about the family, express their feelings.
2. Read and understand narratives, dialogues and poems.
3. Write sentences, paragraphs, and notes on familiar topics, particularly those related to personal information and routine activities.
4. Recognize and appreciate differences within the cultures of Spanish-speaking countries and their own.

## **Spanish IV – 1 credit     1.3 Weight**

### **Grade Level: 12**

Pre-requisites: C average in Spanish III; others permitted with teacher recommendation

This course is designed for above average language students with a strong desire to learn complex grammar while applying previously learned skills. Written and oral tests, oral presentations, interviews, compositions, and essays are assessment tools. Advanced Spanish literature is a requirement for the fourth nine weeks. Students will be expected to study independently, in addition to the classroom instruction. Upon successful completion of course, students should be able to:

1. Say and understand phrases in Spanish, ask and answer simple questions, identify objects, indicate location and talk about clothing and shopping, make requests and order food in restaurants, talk about the family, express their feelings.
2. Read and understand narratives, dialogues and poems.
3. Write sentences, paragraphs, and notes on familiar topics, particularly those related to personal information and routine activities.
4. Recognize and appreciate differences within the cultures of Spanish-speaking countries and their own.

## **French I – 1 credit**

### **Grade Level: 9-12**

Pre-requisites: None

This is a beginning French course for students in grades 9-12, emphasizing the four basic skills: listening, speaking, reading, and writing. The text, Allez, viens, consists of lessons based on a variety of French-speaking areas with practical application of vocabulary, grammar, and culture. Oral and visual projects, which incorporate vocabulary and grammar, are required throughout course. Students will recognize the differences between French speaking countries and their own.

## **French II – 1 credit**

### **Grade Level: 10-12**

Pre-requisites: French I, full year credit with a passing grade

This course is a continuation of French I. The four basic skills of listening, speaking, reading, and writing are expanded. Students apply prior knowledge, while increasing their vocabulary, grammar, and culture with the Allez, viens text. Oral and visual projects, which incorporate vocabulary and grammar, are required throughout course. Students will recognize the differences between French speaking countries and their own.

## **French III – 1 credit**

### **Grade Level: 11-12**

Pre-requisites: C average in French II; others permitted with teacher recommendation

This course is designed for above average language students with a desire to expand on previous skills. Oral presentations, interviews, compositions, and essays are assessment tools. Grammar includes multiple verb tenses. Reading French literature is a requirement during the fourth nine weeks. Students will be expected to study independently, in addition to the classroom instruction.

## **French IV – 1 credit**

### **Grade Level: 12**

Pre-requisites: C average in French III; others permitted with teacher recommendation

This class is designed for above average language students with a strong desire to learn complex grammar while applying previously learned skills. Oral presentations, interview, compositions, and essays are assessment tools. Advanced French literature is a requirement for the fourth nine weeks. Students will be expected to study independently, in addition to the classroom instruction.



## Fine Arts Courses and Electives

### **Art I – 1 credit**

This course is a full year elective for students' grades 9-12. Students who have an interest in drawing and painting would be the most likely to elect this class. The course will introduce them to the elements of Art, as well as various artists and artistic styles (past and present). Some periods of Art will be covered as well. A working portfolio will be kept in the art room to monitor progress and daily participation is required to keep up. In the spring, the art classes display their "showcase" work in conjunction with either the school play or the spring concert.

### **Art II – 1 credit**

#### **Prerequisite: Successful completion of Art 1**

This course is a full year elective for students' grades 9-12. Therefore, a pre-requisite for the class is a year of Art I with a passing grade. Students must have completed the basics in Art I and have established a foundation to build upon in the elements of Art. There must be some drawing ability in the student for them to continue in the Art program. Some transfer of knowledge from the prior year is a necessity. Drawing is a large part of this course, so it only follows that if a student has little or no interest in drawing, the student should not elect to take Art II for a full year. Each student in the art room will keep a working portfolio and there will be individual as well as classroom critiques to monitor progress. Daily participation is necessary. Some work will be 3-dimensional so attendance is important as it becomes difficult to keep current with the assignments. A spring art show will display the students' work.

### **Art Projects – 1 credit**

This course is a full year elective for students' grades 9-12. It is meant to be a "hands-on art class" for students who aren't necessarily gifted in the drawing area of Art. The use of tools (such as X-acto knives, hot glue guns, staplers, etc.) is common and the instructor must monitor the use of such tools. Students will make various craft projects as well as painting and some fabric artworks. Projects will often be on display throughout the year. An art show in the spring will highlight their work.

## **High School Chorus – 1 credit**

This course consists of students in grades 9 – 12 during the course, students have the opportunity to study and perform a variety of musical genres including contemporary gospel, popular, musical theater as well as classical. Singing in choir develops musical skills such as intonation, techniques, dynamics, tone quality, diction, rhythm and musicianship. In order to be a member of the choir program the students must participate in middle school chorus or arrange an audition with the director. *Students are graded on class attendance, participation, attitude/conduct and mandatory performances that consist of the Christmas concert, Mercer County Court House Sing, Spring Concert and some participation in the Spring Musical (stage crew, ushers, actors, actresses, make-up, costumes, lights, set construction, publicity, etc.)* The consequence for any missed performance is a zero percent grade unless there are extenuating circumstances such as death/sickness, and in those cases, a parent/doctor excuse will be required.

## **High School Band – 1 credit**

Pre-requisites: The student must be a member in good standing in the Cadet Band, and/ or pass an audition approved by the Director of Bands.

High School Band gives the student the opportunity to continue to develop musical skills: technique, intonation, dynamics, articulation, tone quality, self-discipline, responsibility, and musicianship. High School Band consists of Concert Band. Students are required to participate in all of the ensembles. Students are required to attend all performances. Wide varieties of musical styles will be studied including: classical, contemporary band literature, jazz, and marches.

**Marching Band and Pep Band will take place before school, as it is an extracurricular event. Students who wish to participate will have to go through an audition. Practices after school and throughout the summer will be mandatory in order for participation in this event.**

## **Health Education**

### **Physical Education - .25 credits**

Students will participate in physical education twice a week for a full year as per the state mandate. The curriculum will focus on lifetime fitness through aerobic workouts, strength training and participation in a variety of team and individual sports. Classes will utilize the fitness center and weight room for personal fitness while skills, rules and strategies for various team sports will be taught in the gymnasium and outside on the field. In addition to participation in physical activity, quizzes and test will be used to assess related knowledge. Students will also learn responsible personal and social behavior that shows respects for self and others in physical activity settings. Students will gain an appreciation for and value physical activity not only for the healthful benefits, but also for the self-expression, the social interaction, the enjoyment and the challenge.

### **Health - .5 credits**

This course is designed to teach students ways to maintain a complete physical, mental, and social well-being.

### **Family Consumer Science – 1 credit**

This course is an advanced study of all areas of Family and Consumer Sciences: food and nutrition, textiles and clothing, consumer education, childcare and family living. This course will deal with issues of: Independence, Budgeting, Comparison Shopping, Having Healthy Relationships, the various Stages of Child Development and how to relate to children, the transition period of marriage, parenting skills and finding a job and dealing with conflict, discrimination and Layoff in the workplace.

## **Career Education**

### **Career/Life Management - .5 credits**

There is a heavy focus on becoming college ready, career planning (complete career inventory test is completed by every student), preparing for work, success skills, money management with a focus on economics and business math, being a good and responsible citizen and what being a lifelong learner means. This course also requires 4 oral presentations in which students speak in front of the entire class on topics ranging from career choices to colleges and the military.

### **Financial Fitness for Life - .6 credits**

This course heavily reinforces the Career class however, the focus is on an economically smart way of thinking, earning income, managing income and revenue as well as saving money, investing money, credit and investments. This course also takes students through a 9-month long checking account simulation where students will write out checks, fill out deposit slips and keep track of online banking and activities.

# **Technology Education**

## **Computer I – 1 credit**

The focus of this course is to make students proficient in Microsoft Word and Google Classroom. A significant amount of time is spent on Microsoft Word and Power Point, which compliments Google Docs and Slides. Students will be taken through a plethora of assignments that help reinforce proper document creation along with enhancement and professionalism. The primary focus is to get students college ready to utilize the programs that will enhance their higher education experiences.

## **Computer II – 1 credit**

Prerequisites: Computer I

The focus of this course is to build on the previous enhancements the student has acquired in Microsoft Office and to become advanced in all its programs.

## **Multimedia - .5 credits**

Multimedia is an introduction course to using various software programs beginning with, but not limited to the Microsoft Office Suite, Windows Movie Maker, Photoshop and Paint. During this course, students learn how to create images for print, multimedia or web design. Students will also learn to prepare a variety of publications ranging from advertisements to brochures to magazines and t-shirts. Students will complete a real world simulation that will encourage them to use decision-making strategies and make creative decisions on their own. This course will give students interested in design and Multimedia an idea of what this profession entails.

## **Photography – 1 credit**

Photography is an exciting course that examines the history of photography and how photography has changed in the last 100 years. Students will also learn to effectively compose their photos using the rule of thirds, horizon lines, balance, grouping, leading lines, and framing. Students will learn manipulate digital images they have taken using various different types of software. They will also discover how to make movies using still and video images they have taken. In Photography, students will become skilled at writing captions for photos they have taken and incorporate those photos into a major school publication. This course will not work on the yearbook, but may take pictures around the school to be placed in the yearbook later in the school year.

# **Industrial Arts**

## **Woodshop 1 – 1 credit**

This course will provide a basic understanding of the fundamentals of woodworking. Students will be involved in hands-on experiences that develop insight, skills, problem-solving techniques and understanding of basic woodworking and shop safety. Hand tool skills, machine skills, shop safety and machine processes will be taught as related to our ever-changing technological world. Many basic math and geometry concepts will be incorporated into completing each individual projects.

## **Woodshop II – 1 credit**

This course is designed for students that have taken wood technology I and want to further develop their woodworking skills and interests. During this full year course students will be required to design, cut out wood, assemble, sand, and finish a wood project from a set list (chest, night stand, coffee table) or one they choose with teacher approval. Students will be involved with planning and drawing design throughout the project. Students will be exposed to the use of hand held power tools. Student project are designed to further develop woodworking skills and machine skills through set up, application, problem solving techniques, and creative abilities.

## **Woodshop III & IV – 1 credit**

This course is designed for students who have taken wood technology I and wood technology II and want to further explore woodworking as a career or hobby. During this full year course, students will work independently in researching, designing and building a wood project of their choice. Students will use all prior knowledge of safety, machine use, power tool use, hand tool use, designing, assembling, staining and finishing in the completion of their wood project. Students will work more independently with the teacher as a facilitator within the shop. Students will be responsible for all project choices, working drawings, design work, machine set up, machine use, machine choice, power tool use, and hand tool use.

## **Computer Aided Drafting and Design – 1 credit**

The goal of this course is to introduce the many aspects of CADD (Computer Aided Drafting and Design). The students will be instructed on how to use the AutoCAD program to construct basic shapes in developing a 2 (two) dimensional drawing, use of math concepts to calculate dimensions, use of geometry to construct lines, circles, and arcs, and develop more advanced computer skills. This course is designed to be a hands-on experience and develop the techniques and concepts related to drafting and architecture. The AutoCAD program is the same program engineers and architects use in the business. This course will help establish a good basis for exploring and developing skills in the related fields of CADD.

**FARRELL AREA SCHOOL DISTRICT  
GUIDELINES FOR ATTENDING  
MERCER COUNTY CAREER CENTER**

All students are encouraged to investigate the training and opportunities available at the Mercer County Career Center. Students who are planning to pursue a career that does not require a college degree are encouraged to make application to the Career Center. Any student from Farrell may attend the Career Center upon successfully meeting the standards necessary for application. Students who do not meet the standards initially may apply as soon as the standards are met. Special needs students will be considered based on his/her I. E. P. It is the goal of the district to assist every student to meet the standards necessary to graduate and pursue training that is best suited to the interests and abilities of the student.

## Auto Body

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**The automotive industry has a rich heritage and exciting future. That future is reflected in Auto Body Technology, one of the fastest growing and most innovative fields in the industry. You use cutting edge technology based on Automotive Service Excellence (ASE) Standards as you estimate damage, replace parts, refinish/detail automobiles and prepare a vehicle for customer delivery. Learn welding, plastic repair, refinishing/painting to create career opportunities in manufacturing, fabrication as well as auto body technology while earning I-Car certification. Instruction takes place in a safe, clean, well-equipped shop.**

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## Auto Mechanics

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**The Auto Mechanics program is designed to provide the students with entry-level skills and knowledge needed to diagnose and repair today's modern vehicles. The student's training is based on Automotive Service Excellence Standards (ASE) and includes the following: Braking systems, steering and suspension systems, engine performance, electrical and electronic systems, automatic and manual transmissions, HVAC (heating ventilation and air conditioning), and engine repair. Standard automotive business practices are also studied including: completing and calculating work orders, time cards, and parts invoices. The program also provides the students the opportunity to earn their Pennsylvania State Inspection license and their Northern Region Emission Inspector license. Students are able to work on trainer vehicles, customer vehicles, and their own vehicles.**

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# Building Trades Maintenance

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**In Building Trades Maintenance, students learn basic skills in Electricity, Masonry, Plumbing, Carpentry, and HVAC/R (Heating, Ventilating, Air Conditioning, and Refrigeration). Many students develop advanced skills in one or more of these technical areas. Students will learn to safely operate a wide variety of hand tools and power machinery. During the first year students study and develop skills in all of the program areas. In the second year, students are encouraged to specialize in one of the program areas. Students have the opportunity to apply for all union trades after completion of senior year.**

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## Carpentry

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**Carpenters literally build the future by constructing and remodeling houses, apartments, and commercial buildings. Join the Carpentry Team and learn to build like a pro! Use computers and architectural design software to draw floor plans and renderings. Construct a house using the latest tools. Visit area work sites, meet professional builders, and visit the Carpenters Union to learn how to earn your journeyman's card. Visit colleges and learn about advanced degrees in Management and Engineering. Learn how experienced Carpenters advance into supervisory positions or own their own business.**

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## Cosmetology

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**Experience the world of beauty and fashion through the Cosmetology program. Use cutting edge techniques to deliver precision haircuts, perms, chemical relaxing, braiding, manicures, facials and hair color treatments. Two days a week you will master your skills on customers in our student operated salon. Students successfully completing 1250 hours of instruction are eligible for licensure from the Pennsylvania State Board of Cosmetology.**

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## Culinary Arts

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**The course is designed to give students the basic skills needed to start a career in the restaurant and hospitality industry. You will create foods, from appetizers to desserts, in our professionally equipped kitchen and bakery. The curriculum and professional equipment is designed to develop skills in all areas of the food service industry and equip students for immediate employment or post high school training. Students will be able to earn ServeSafe certification.**

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# Diesel Mechanics

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**Learn the skills needed to pursue careers in a multitude of areas, including but not limited to: welding, hydraulics, pneumatics, electronics, as well as “bumper to bumper” diesel repair. In addition to classroom instruction, students diagnose, service, and repair all aspects of diesel related equipment. This is accomplished using modern “high-tech” scan tools and personal computer interfaces. Diesel engines have become more fuel efficient, lighter, quieter, and environmentally friendly. These factors have created an increased demand for talented and skilled technicians. This program has a long proud history of student success and service to the community.**

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# Early Childhood Education

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**Learn the skills needed to work with young children, through working in a fully functional preschool. Obtain infant and child CPR and First Aid Certification. Earn experience hours toward a Child Development Associate (CDA) Certification. Prepare for postsecondary schooling in the education field or prepare to enter the workforce in a childcare center or as a family childcare provider.**

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# Electronics Technology

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**Instruction in this program will develop basic levels of knowledge, understanding and skills essential for entry-level employment in communications, industrial electronics, digital processing, robotics, avionics, biomedical technology and other electronics occupations. This program prepares individuals to apply basic electronic principles and technical skills to the production, calibration, estimation, testing, assembling, installation and maintenance of electronic equipment. Using the latest technology, you will build telephones, security alarm systems and rockets. Students in Electronics Technology have the ability to earn college credits at California University of PA.**

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# Entrepreneurial Studies

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**Get prepared for both the workforce and to continue post-secondary education. Learn how to use common business software applications and maintain a business's image. Show your innovation and creativity but using state-of-the-art graphic technology. Use on-line design and business simulations both in the classroom and virtually. Work with local companies to create new ideas, designs and products. Students will start and market several businesses, run and market a school store, create and market a yearbook, visit several innovative businesses, and be members of DECA, FBLA, and SkillsUSA. Students can also earn Microsoft Specialist Certification and ASK Institute Certification while in enrolled in the program.**

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## Health Care Careers

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**The Health Care Career Program is designed to allow students the ability to gain a preparatory understanding of the health care environment. Through career exploration, students are able to make an informed career decision prior to postsecondary education. The course focuses on anatomy, physiology, and medical terminology. Certifications include American Heart health Care Provider (CPR/AED, American Heart First Aide, and American Heart Pediatric First Aide, and PA Nurse Aide Registration) with clinical experience at nursing facilities.**

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## Innovation and Design

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**Participate in Mercer County's only Fab Lab. Whether looking to enter the workforce or to pursue engineering at the post-secondary level, students will design, build and test solutions to practical problems in business and industry. Students will be trained using CAD/CAM and Solidworks software. The latest technology will be used to view and scrutinize designs in 3D. Multiple materials 3D printers will be used to create prototypes using different colors of plastics and rubber. Students will also explore mechanical and electromechanical processes currently used in today's hi-tech manufacturing work. While in this program students can earn National Institute for Metalworking Skills (NIMS) certification in Industrial Maintenance or Manufacturing Skill Standards Council (MSSC) Certified Production Technician certification.**

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# Precision Production Metals

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**This course is designed for students to gain knowledge and skills with an emphasis in machining, welding, sheet metal fabrication, hydraulics and pneumatics. Areas are taught through hands-on assignments to develop technical skills. Through a variety of projects, students will be able to plan, setup, operate machines, as well as to manufacture and assemble metals. National Institute for Metalworking Skills (NIMS) certification is available to those enrolled in Precision Production Metals.**

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## Protective Services

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**Learn about the exciting field of public safety and homeland security. You may also earn credits at post-secondary institutions. You can earn several certifications, including Healthcare Provider, First Aid, and National Incident Management Systems (NIMS). You may also become certified as an Emergency Medical Responder. Investigate crime scenes, practice police patrol, and learn emergency communications. Some of the career opportunities available to you are Police, Conservation Officer, Security Officer, Firefighter, and the armed services.**

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## Welding

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**The welding program focuses on the instruction of many industry-specific types of welding, brazing, and soldering techniques. Students will learn Arc, Mig, Tig, Flux-core, and Oxy-fuel Welding. In addition, students will receive instruction in Plasma and Oxy-Fuel cutting of metals. Blueprint reading will be taught so students can learn to produce real-world products and parts. American Welding Society standards are integrated into this welding curriculum.**

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For further information on Mercer County Career Center programs and services, please visit our web site [www.mercerccc.org](http://www.mercerccc.org).

# Farrell Area High School:

## 9<sup>th</sup> Grade Registration: 18/19 School Year

Student Name \_\_\_\_\_ Interested in Vo-Tech \_\_\_\_\_

Parent Signature: \_\_\_\_\_

### Required Courses:

English 9

English 9 Advanced     **Prerequisite: Proficient completion of English 8 with an 85% or higher, and a minimum of a Proficient score on the PSSA ELA Exam**

Science 9

Civics / Economics

PE / Keystone Prep

### Math Options: Math courses will be assigned based on previous year's final grades

Academic Algebra

Algebra I

Algebra 2

### Electives: (Choose 2 and one alternate)

Band

Piano (limited space)

Choir

Art 1

Drafting/CADD

Wood 1

Computer 1

Spanish 1

French 1

Robotics

Journalism

Family Consumer Science

**Farrell Area High School:**

**10<sup>th</sup> Grade Registration: 18/19 School Year**

**Student Name:** \_\_\_\_\_ **Interested in Vo-Tech:** \_\_\_\_\_

**Parent Signature:** \_\_\_\_\_

**Required Courses:**

English 10

English 10 Honors      **85% or better in English 9**

Biology

African American History

PE/Financial Fitness

**Math Options: Math courses will be assigned based on previous year's final grades**

Algebra I

Algebra II

Geometry

**Electives: (Choose 2 and one alternate)**

Band              Choir              Piano (limited space)

Art 1      Art 2      Art Projects      Wood 1      Wood 2      CADD

Computer 1      Computer 2      Photography

Spanish 1      Spanish 2

French 1      French 2

Robotics      Family Consumer Science

Journalism

# Farrell Area High School:

## 11<sup>th</sup> Grade Registration: 18/19 School Year

**Student Name:** \_\_\_\_\_

**Parent Signature:** \_\_\_\_\_

### **Required Courses:**

English 11

English 11 Honors      **85% or better in English 10 and a minimum of a Proficient score on the Literature Keystone Exam**

Chem In the Com.      Chem/Lab      Physics/Lab      Biology II      Chem II

American History

PE/Health

### **Math Options: Math courses will be assigned based on previous year's final grades**

Algebra I

Algebra II

Geometry

Algebra III/Trigonometry

Calculus

### **Electives: (Choose 2 and one alternate)**

Band              Piano (limited space)              Choir

Art 1      Art 2      Art Projects      Advanced Art              Journalism

Computer 1      Computer 2      Photography

Wood 1      Wood 2      Wood 3      CADD

Spanish 1      Spanish 2      Spanish 3

French 1      French 2      French 3

Robotics      Family Consumer Science

# Farrell Area High School:

## 12<sup>th</sup> Grade Registration: 18/19 School Year

Student Name \_\_\_\_\_

Parent Signature: \_\_\_\_\_

### Required Courses:

English 12

English 12 Honors      85% or better in English 11 and a minimum of a Proficient score on the Literature Keystone Exam

Chem II      Biology II      Physics /Lab

World History

PE/Multimedia

### Math Options: Math courses will be assigned based on previous year's final grades

Algebra 2

Geometry

Algebra III/Trigonometry

Calculus

### Electives: (Choose 2 and one alternate)

Band      Piano (limited space)      Choir

Art 1      Art 2      Art Projects      Advanced Art

Wood 1      Wood 2      Wood 3      Wood 4      CADD

Computer 1      Computer 2      Photography

Spanish 1      Spanish 2      Spanish 3      Spanish 4

French 1      French 2      French 3      French 4

Robotics      Journalism      Family Consumer Science

