



**QUAKER VALLEY HIGH SCHOOL
PROGRAM OF STUDIES
2019-2020**

Revision April 3, 2019

COMPLIANCE STATEMENT

It is the policy of the Quaker Valley School District not to discriminate on the basis of race, sex, religion, color, national origin, age, handicap or limited English proficiency in its educational programs, services, facilities, activities or employment policies as required by Title IX of the 1972 Educational Amendments, Title VI and VII of the Civil Rights Act of 1964, as amended, Section 504 Regulations of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Section 204 Regulations of the 1984 Carl D. Perkins Act or any applicable federal statute.

For information regarding programs, services, activities, and facilities that are accessible to and usable by handicapped persons or for inquiries regarding civil rights compliance, contact: Quaker Valley School District, 100 Leetsdale Industrial Drive, Suite B, Leetsdale, PA 15056; or the Director of the Office of Civil Rights, Department of Health, Education and Welfare, Washington, D.C.

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Quaker Valley High School

The mission of Quaker Valley High School is to graduate socially responsible and academically skilled individuals who are self-directed, critical thinkers prepared to function in a global society, by continually shaping an ambitious and varied curriculum with high academic, artistic, and ethical standards, coupled with practical experiences gained in school and community.

Dear Students:

The Quaker Valley High School faculty and administration have prepared the 2019-2020 Program of Studies to assist you and your parents in the process of course selection. You will find a wide array of required and elective courses. Your teachers, guidance counselor, Office of Collegiate Affairs director, and principal are available to assist you with goal setting and appropriate course selection as you move toward graduation. You are strongly encouraged to discuss your goals and course options with these individuals and your parents prior to scheduling.

Arena scheduling, a highly personalized process that enables you to create your own schedule according to your specific needs and goals, takes place in April of each school year. Long before the arena takes place, however, you will begin the preliminary planning process, using the scheduling grid/worksheet provided by your guidance counselor. Subsequently, you will make course selections on PowerSchool. Your conscientious work during the pre-arena process beginning in January is necessary to ensure that adequate sections of each course are made available when all students schedule in the spring.

On behalf of the faculty and staff of Quaker Valley High School, we wish you the very best success as you plan your future. We look forward to working with you throughout your high school career.

Sincerely,

Deborah L Riccobelli
Principal

Quaker Valley School District Administration

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Quaker Valley School District

Shared Vision, Mission and Belief Statements

Shared Vision...

It is our shared vision to become a thriving community of learners in an environment that embraces a culture of thinking.

Mission...

The mission of the Quaker Valley School District is to engage and inspire the hearts and minds of every learner every day.

Belief Statements...

All people want to learn; all people can learn.

Every individual has a unique combination of abilities and attributes that when recognized, nurtured and challenged, promote the realization of potential.

It is our responsibility to nurture in each learner the qualities that prepare our students to be lifelong learners and ethical, responsible citizens.

Communities that invest in youth prosper.

Introduction

Self-Directed Experiential Learning

During Grade 10, students will engage in a self-directed learning experience that will earn 1.0 credit and fulfill a requirement for graduation. Designed to foster talent development in areas of students' personal strengths and interests, these experiences will focus on skills such as initiative, perseverance, time management, communication, responsibility, and problem-solving. Students will participate in a series of seminars to help them to conceive an idea, plan and execute a goal and reflect on what they've learned as they complete the task, project or experience they've designed.

Course Levels

The educational program at Quaker Valley High School provides comprehensive educational programs for students with varied academic needs and interests. Subjects taught at the high school are offered at various levels as follows:

- 3000 Courses demanding high performance standards necessary to prepare for post-secondary education (most sections of English, social studies, math, science, and foreign language)
- 4000 Honors and/or Advanced Placement courses
- 8000 Elective courses (In the scheduling process, preference is usually given first to senior requests, then juniors, etc.)
- 8900 College in High School courses
- 9000 Courses offered at Parkway West Career and Technical Center on a half-day basis as a complement to Quaker Valley's academic program.

Honors Courses

Most classes are in the 3000 or 8000 series. Courses in the 4000 series exceed the curricular scope, intellectual depth, and instructional pacing of comparable courses in the 3000 series. Honors courses carry an added value of .04 for grades of C+ or better.

Advanced Placement

These college level courses require students to meet high standards for success. They require reading and writing skills at a superior level as well as abilities to analyze, synthesize, evaluate, and create. Students selecting these courses must be highly motivated, self-directed learners. AP courses carry an added value of .06 for grades of C+ or better. All students enrolling in AP courses **are required** to take the Advanced Placement exam for that course.

College in High School Courses

Courses offered through the College in High School (CHS) program provide students the opportunity to earn college credit at affiliated institutions while taking courses at Quaker Valley High School. Students will receive an added value of .06 for completing a College in High School course with a grade of C+ or better. Students who choose to pursue college credit will be assessed a fee for the course. The fees are approximately \$235. In addition, students may be responsible for the cost of texts and supporting software. Students may elect to take a CHS course for high school credit only, at no cost.

Internships, Apprenticeship, Work-Based Learning Experience

Quaker Valley High School offers various learning opportunities outside of the classroom. Opportunities can be created, based on student and community requests. Contact Mrs. Keller, Career Education Coordinator, for further information (kellera@qvsd.org).

Global Scholars Credential

While all Quaker Valley High School students matriculate through a relevant, globally focused curriculum emphasizing 21st Century skill development, students who wish to independently explore global topics in more depth may earn the Global Scholars Credential as part of the Global Scholars Program. To earn the Global Scholars Credential, students are required to do the following:

1. **Obtain a grade of B- or better on 5 credits worth of Global Scholars Core Courses (see below).**
2. **Complete three courses (4.5 Credits) of World language study in the same language at the high school level.** In order to reach a high level of proficiency, students must either study the same language for all three courses (at the high school), or they can opt to study a language at the high school level for two courses, and then complete a course that focuses on a Less Commonly Taught Language. (LCTLs).
3. **Complete other required coursework consisting of:**
 4 years/courses of English
 4 credits of Social Studies
 3 years/courses of Math (4 courses are highly recommended)
 3 years/courses of Science (4 courses are highly recommended)
 4 courses of Global Scholars Electives with at least one Technology/Science Elective and at least one of the Art and Expression, Music or Language Arts Electives.
4. **Independently participate in a series of global enrichment experiences (50 credits) and demonstrate learning through a portfolio of works.** Experiences may include, but are not limited to: study abroad, global dual-enrollment coursework, global enrichment workshops, videoconferences, seminars or study groups.

 Denotes a Global Scholars eligible course in the Program of Studies

GLOBAL SCHOLARS CORE COURSES

21 Century English
 CHS Argument, Communication, Rhetoric
 AP English Literature and Composition
 9th and 10th grade Language Arts (all levels)
 Global Civics
 World History (all levels)
 Economics
 AP Macroeconomics QVO
 AP US Government and Politics
 Biology (all levels)
 Self-Directed Experiential Learning

GLOBAL SCHOLARS ELECTIVES

<p>Technology/Science Electives 3703 Introduction to Web Design (.5) 3704 Advanced Web Design (.5) 3706 Introduction to Networking (.5) 3711 Intro to Java Programming (.5) 3712 Intro to Computer Programming w/Python (1.5) 4450 AP Comp. Science Principles (1.5) 5802hv AP Computer Science A QVO (1.5) 86011 Tech and Eng. Fundamentals (.5) 8602 Robotics (.5) 8603 Transportation Technology (.5) 8604 CADD (.5) 8605 Construction Tech/Stage Design (.5) 4315 Honors Research Science (1.0) 3318 Ethics in Science (.5) 4317 AP Environmental Science (1.5) 9923-9925 Digital Multimedia I-III 9932-9934 Information Technology Essentials I-III 99911 Sports Medicine and Rehabilitation Technology I A 4th year of Science counts as an elective.</p>	<p>Art and Expression Electives 8813 Ceramics I (.5) 8818 Ceramics II (.5) 8817 Sculpture (.5) 8842 Metals and Jewelry (.5) 8844 Intro to Glass Mosaic (.5) 8812 Beginning Drawing + Painting (.5) 8841 Intermediate Drawing + Painting (.5) 8816 Advanced Drawing + Painting (.5) 8837 Introduction to Digital Imaging (.5) 8838 Intro to Computer Illustration (.5) 8839 Advanced Digital Imaging (.5) 8840 Advanced Computer Illustration (.5) 8843 3D Design and Animation (.5) 4810 AP Studio Art (1.5) 4808 AP Art History (1.5)</p>	<p>Music Electives 8799 Honors Band (1.5) 8798 Concert Band (1.5) 8802 String Orchestra (1.5) 8803 Concert Choir (1.5) 8823 Comprehensive Musicianship (.5) 8824 Partners Music (.5) 4820 AP Music Theory (1.0)</p> <p>Language Arts Electives 8101 Introduction to Journalism (.5) 8108 Mythology (.5)</p> <p>Other Electives 8220 Criminal and Civil Law (.5) 8211 Intro to Psychology (.5) 4350 AP Psychology (1.0) 7917 World Vision Internship (.5)</p>
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Special Education

Parents of students who suspect that their child has a disability and is in need of special education may request a multidisciplinary team evaluation of their child through a written request to the building principal or director of pupil services. For additional information pertaining to special education services, please refer to the Quaker Valley School District website at www.qvsd.org or contact the school counseling office at 412-749-6014.

Arena Scheduling

Arena scheduling at Quaker Valley High School is a highly personalized process that enables students to create their own schedules according to their priorities, preferences, specific needs, and goals. The arena scheduling format, unlike computerized scheduling, engages students and their teachers and counselors in rich discussion and joint decision making, as students create their individual schedules within the framework of a pre-determined master schedule. The design of the master schedule is based on information gathered from students and teachers during the pre-registration phase.

Pre-registration is a process that takes place during students' English classes, with guidance counselors assisting students as they complete the scheduling worksheet grid that is later transferred by the student to PowerSchool. Data from PowerSchool are collected and reviewed by teachers and counselors, and any errors or discrepancies are resolved. The accuracy of the information we obtain during pre-registration is vital to the creation of a quality master schedule.

Occasionally, a student will request a course for which he/she does not have the current teacher's endorsement. Typically this occurs when a student's performance in the prerequisite course does not meet the minimum standard required for the course requested. In such cases, the student and his/her parent may comply with the teacher's recommendation or request a **Team Review Meeting** with the teacher and guidance counselor to review the placement recommendation. To override the teacher's recommendation, the student and parent are required to sign a waiver, thereby assuming full responsibility for the choice and accepting the potential consequences of this action. The team review meeting and waiver process facilitate open and frank communication between parents, students, and teachers. This process assures that students and parents clearly understand the basis of the teacher's recommendation, and that students have reasonable access to all courses.

Our first priority with regard to scheduling students is to ensure that graduation requirements are met in a timely manner. For this reason, the arena is organized to accommodate seniors first, followed by juniors, and so on. Within each grade, report rooms are drawn by lottery to determine the order in which students attend the arena. Exceptions to this sequence include certain priority groups, as determined by the building principal, such as students with Individualized Education Plans (IEPs) and 504 service plans. Such students may be scheduled in advance of their grade level peers.

The arena takes place in the spring of each school year. One report room of approximately twenty students attends the scheduling process at a time, accompanied by the report room teacher. The arena scheduling process is well staffed with teachers from each department, guidance counselors, and administrators, all of whom assist students throughout the process. While students in the lower grades may not get their first choice electives, they will have future opportunities to access those classes, and regardless of grade level, no student will be denied the appropriate core academic course required. At the conclusion of the scheduling process, each student leaves with a copy of his/her tentative schedule. The official copy is mailed to the student in the summer, prior to the start of the school year. Since ample time and guidance are provided to students long before this point, and given that most courses are full by this time, counselors will not change individual schedules. Only the principal may authorize a change to a student's schedule, when absolutely necessary, assuming the requested course is not full.

Customized Curricular Alternatives

Recognizing the unique interests and ambitions of our high school students, we employ a variety of modifications, when necessary, to meet the needs of each learner. These may include adaptations to course requirements, modifications to a student's schedule, and/or adjustments to instructional time and place. A student who wishes to explore alternatives to his/her current course of study is encouraged to see a teacher, a guidance counselor, the secondary academic specialist, or the principal.

Procedures Regarding Secondary and Post-Secondary Courses Taken at Other Institutions

Secondary Level Courses

With the pre-approval of the principal, students may enroll in secondary level courses at other educational institutions for purposes of:

1. Remediation
2. Advancing their studies so that they can move to a higher level in a subject area
3. Accessing courses or programs not available in the school

In such cases, when the student is in 9th grade or beyond, the credit may be noted as part of the student's record, and the student will be appropriately advanced at Quaker Valley High School if he/she has earned a grade of C or better. A second transcript will identify the course and grade earned. These courses will be applied toward graduation requirements; however, they will not be included in grade point average calculations.

Remediation courses must provide 60 hours of instruction for a full credit course.

Demonstrating Proficiency

Students who wish to receive credit for Quaker Valley High School courses by demonstrating proficiency must follow procedures outlined in Section 205.02 of the School Board Policy of Quaker Valley. Criteria for meeting various course standards are available through the guidance office. Students who wish to seek credit for a course by demonstrating proficiency must inform the principal and guidance counselor in writing at least one week prior to the start of the course so that appropriate arrangements may be made for testing and reviewing work. When a student successfully completes course work in this manner, he/she shall be awarded credit toward high school graduation with a "P" (pass) grade. This information will be included on a transcript and be noted as "credit by demonstration of proficiency." The student will be eligible for placement in the next level of the course if he or she demonstrates the prerequisite competencies.

Dual Enrollment

Students may explore opportunities to take classes at nearby colleges and universities, and some colleges such as Penn State Beaver and LaRoche may offer high school students a discounted rate. With the pre-approval of the principal, dual enrollment is offered to enhance the opportunities available to our students, not to replace Quaker Valley High School courses within the Program of Studies. Some college courses will allow the student to earn both high school and college credit simultaneously.

The college or university issues grades directly to the dual enrolled student; however, grades earned through dual enrollment are not included in the calculation of the Quaker Valley High School grade point average. Students are responsible for requesting transcripts from the college or university for their records. Students should contact their guidance counselor or the Director of Collegiate Affairs for more information.

Quaker Valley eLearning/QVO (Quaker Valley Online)

Quaker Valley eLearning provides high quality, flexible educational opportunities, which include access to relevant academic and exploratory content, to all Quaker Valley students. The purpose of these opportunities is to enhance the learning experiences of all students and to develop the skills necessary to compete in a global society. Student participation in eLearning is based upon the individual needs of the student and is subject to the eLearning approval process. A review team, headed by the principal, will determine student placement into these courses. Students who elect to participate fully or partly in eLearning as Quaker Valley students remain members of our learning community and thus have access to all activities and services available to all Quaker Valley students. As Quaker Valley eLearners, all students taking online courses are also subject to policies and procedures outlined in the student handbook.

Students interested in participating in Quaker Valley eLearning opportunities must participate in the eLearning request and enrollment process. The student's counselor, principal, and academic team will determine the appropriateness of the request and make recommendations to the student based upon the student's academic needs or career plans as to the suitability of an online enrollment.

Students are advised to contact their school counselor for direction should they have an interest in QV eLearning opportunities. Quaker Valley Online (QVO) courses are subject to the Online Course Withdrawal Policy. Students who enroll in online courses have 10 days to drop without penalty. If a student drops a course after 10 days, a grade of "WF" and the credit value of the course will appear on his or her transcript. Parents and students are required to read and sign-off on the policy prior to enrolling in an online course. All QVO students will meet with Quaker Valley's eLearning Coordinator prior to the start of each course.

QVO courses may be scheduled as one of the six periods of the day or as an additional credited class beyond the school day. Online instructors provide content, assignments, feedback, and tests. Progress is monitored by Quaker Valley eLearning coordinator. Students are expected to log in to their online courses daily, are required to stay in contact with their online instructor and should notify the eLearning Coordinator if they are experiencing difficulty with the online instructor. Students join virtual classmates from all over the country in discussions, peer editing, and other collaborative activities via the laptop computers. All students enrolled in AP online courses **are required** to take the associated Advanced Placement Examination for the enrolled course. Students will be issued a grade based on performance throughout the course that will be added to the official transcript along with credit. Students taking AP courses who earn a grade of C+ or higher will receive an added value of .06 into the GPA. Enrollment slots are limited. QVO courses run on a semester schedule rather than the high school trimester schedule.

Engineering Technology

- 86011 Technology and Engineering Fundamentals (.5)
- 8602 Robotics (.5)
- 8603 Transportation Technology (.5)
- 8604 CADD (.5)
- 8605 Construction Technology/Stage Design (.5)

Science

- 3308 Environmental Biology (1.5)
- 3307 Principles of Biology (1.5)
- 3309 Biology (1.5)
- 4309 Honors Biology (1.5)
- 3311 Chemistry (1.5)
- 3304 Integrated Physical Science (1.0)
- 3314 Concept Physics (1.0)
- 3313 Physics (1.5)
- 4315 Honors Research Science (1.0)
- 3318 Ethics in Science (.5)
- 4310 Honors Chemistry (1.5)
- 4311 AP Biology (1.5)
- 4312 AP Chemistry (1.5)
- 4316 AP Physics I (1.5)
- 4317 AP Environmental Science (1.5)

Social Studies

- 3208 Global Civics (1.0)
- 3210 World History (1.0)
- 4210 Honors World History (1.0)
- 4209 AP World History (1.5)
- 3211 US History (1.0)
- 4211 Honors US History (1.0)
- 4212 AP US History (1.5)
- 3213 Economics (.5)
- 8211 Introduction to Psychology (.5)
- 4350 AP Psychology (1.0)
- 8220 Criminal and Civil Law (.5)
- 8860 Modern History through Pop Culture (.5)
- 4214 AP US Government and Politics (1.0)
- 8127 Women's History (.5)

World Language

- 3525 French I (1.5)
- 3528 French II (1.5)
- 3529 French III (1.5)
- 4520 Honors French IV (1.5)
- 4314 AP French (1.5)
- 3543 Spanish I (1.5)
- 3544 Spanish II (1.5)
- 3541 Spanish III (1.5)
- 4503 Honors Spanish IV (1.5)
- 4512 AP Spanish (1.5)

Self-Directed Experiential Learning

- 7928 Self-Directed Experiential Learning (1.0)

Internships –Apprenticeships –Work-Based Learning Experience

- 7920 PhD Manager/Tutor Intern (.5)
- 7921 PhD Technology Intern (.5)
- 7906 Teacher Assistant (.5)
- 7907 Work-Based Learning Experience (.5+)
- 7911 Environmental Science Internship (.5)
- 7917 World Vision Internship (.5)
- 7922 ACE Internship (.5)
- 7924 QV Coffee Shop Internship (.5+)
- 7925 CMU ETC Apprenticeship (.5)

QVO-Quaker Valley Online Courses

- 5105hv AP English Language and Composition QVO (1.5)
- 5802hv AP Computer Science A QVO (1.5)
- 5402hv AP Macroeconomics QVO (.75)
- 5401hv AP Microeconomics QVO (.75)
- 5711hv Marketing QVO (.75)
- 5710hv Accounting QVO (.75)
- 5325hv Anatomy and Physiology QVO (.75)

Parkway Career Technical Center Programs*

- 9911-99915 Auto Body Repair I-IV
- 9914-99918 Auto Technology I-IV
- 9920 Construction Technology I
First year cluster consists of:
Building Construction Technology,
Electrical Systems Technology,
Welding Technology and HVAC/R
Years two to four select a concentration from the four areas above.
- 9929-99933 Cosmetology I-IV
- 9902 Nail Technician License
- 9968-99972 Culinary Arts I-IV
- 99992-xxxx Diesel Technology I-IV
- 9923-99927 Digital Multimedia I-IV
- 9947-99951 Health Assistant I-IV
- 99907 Pharmacy Technician Certification
- 99909 Phlebotomy Technician Certification
- 9980-99984 Information Technology Essentials I-IV
- 9977-9983 Public Safety Tech I-IV
- 9987-99991 Veterinary Technology I-IV
- 99911-99916 Sports Medicine and Rehabilitation Technology I-IV

*The courses listed above are taken at Parkway Career & Technical Center. CTC programs are 4.5 credits.

Art

The art curriculum is designed to bring about a basic understanding of art and to broaden the cultural horizons of students. It seeks to have students appreciate art as a basic human activity/response that deepens understanding of one's self and one's world.

The curriculum offers both a sequence of courses that develops artistic skills and individual courses that focus on awareness and exploration. This balance creates opportunities for all students. Portfolio development should be an ongoing activity as students move through the program.

8813 CERAMICS I Grades 9-12 .5 credit/1 Trimester



Prerequisite: None

Description: This is the first suggested course for students interested in pursuing 3D artwork. Students will learn various basic hand building techniques. Students will also explore texture, glazing and other decorative techniques. Students will learn basic terminology in relationship to ceramics. Students will study ceramics in terms of art historical context, aesthetics and art criticism.

8818 CERAMICS II Grades 10 -12 .5 credit/1 Trimester



Prerequisite: Ceramics I

Description: This is the second course for students interested in pursuing ceramic artwork. Students will explore more advanced hand building and wheel construction.

8817 SCULPTURE Grades 10 – 12 .5 Credit/1 Trimester



Prerequisite: None

Description: Students should have completed ceramics with a foundational understanding of hand building. Students will continue exploring various media and its conceptual and functional potential. Students will develop a fundamental understanding of moving from 2D to 3D. Students will have the opportunity to develop their personal relationship with sculpture as a vehicle for conceptual thinking. Students will participate in class critiques and discussions. Students will use a variety of media as a vehicle for conceptual ideas. Students will learn about sculptural methods, techniques, past and current artists whose main medium is sculpture. Students will keep a developmental sketchbook and participate in class critiques.

8842 METALS AND JEWELRY Grades 9-12 .5 Credit/1 Trimester



Prerequisite: None

Description: Students will be introduced to basic metalsmithing techniques including jewelry making and enameling. Students will use metals as a vehicle for conceptual ideas. Students will explore a variety of techniques including sawing, filing, enameling, and soldering. Students will keep a developmental workbook and participate in class critiques.

8812 BEGINNING DRAWING & PAINTING

Grades 9 – 12

.5 Credit/1 Trimester



Prerequisite: None

Description: This is the first course for students interested in 2D work. This course is the prerequisite for all other 2D art courses and must be taken sequentially. Students will demonstrate an understanding of terms related to painting and drawing and develop more advanced skills in those areas. Students will learn about techniques and how to apply the medium in a conceptual way through hands on exploration and the introduction to art in the context of history, aesthetics, and criticism. Students will concentrate on drawing from life and expanding their drawing and painting skills. Students will learn contour line drawing, perspective, shading, watercolor, and acrylic painting. Students will maintain a sketchbook and work daily to practice their skills.

8841 INTERMEDIATE DRAWING & PAINTING

Grades 10 – 12

.5 Credit/1 Trimester



Prerequisite: Beginning Drawing and Painting

Description: This course builds on terms and use of media related to 2D work explored in drawing and painting. Students will explore a variety of media including printmaking. Students will begin to develop their own personal voice in art making using a variety of 2D media building on conceptual thinking. Students will maintain a sketchbook and work daily to practice their skills. Students will participate in class critiques and discussions.

8816 ADVANCED DRAWING & PAINTING

Grades 11 -12

.5 Credit/1 Trimester



Prerequisite: Beginning Drawing and Painting and Intermediate Drawing and Painting

Description: This course continues to build on terms and use of media related to 2D work previously explored. Students will begin to develop portfolios of their artwork incorporating a variety of media. Students will continue to develop their own personal voice in art making using a variety of media to explore and build upon conceptual thinking. Students will learn advanced techniques and concepts through hands on exploration and the study of art in the context of art history, aesthetics, and criticism. Students will maintain a sketchbook and work daily to practice their skills; participate in class critiques, and begin to build a portfolio of artwork.

8837 INTRODUCTION TO DIGITAL IMAGING

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Description: Introduction to Digital Imaging is an entry-level class in the art of working with digital imagery. Students learn use to software such as Adobe Photoshop and hardware devices such as digital cameras and scanners in addition to using Photoshop's tools, manipulating digital images, create selections, and repair photographs. They will also learn about contemporary digital artists, how graphics are created on computers, and how Photoshop is used in the industry.

8838 INTRODUCTION TO COMPUTER ILLUSTRATION

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Description: Introduction to Computer Illustration is an entry-level class in creating artwork on the computer. Students will use computers, scanners, and other tools to create vector-based drawings using software such as Adobe Illustrator. Students will learn basic Illustrator tools and techniques as they create drawings for a variety of applications such as advertising and the web. Students will examine different types of computer illustration from comics and fashion design to technical illustration.

8839 ADVANCED DIGITAL IMAGING

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Intro. to Digital Imaging

Description: Students taking Advanced Digital Imaging will continue to learn the intricacies of Adobe Photoshop and will learn the more advanced techniques and tools. Students will explore how to create styles, custom shapes, patterns, animated gifs, composite images, and typography. They will be creating more complex images for use on the web or in print and will create a digital portfolio of their work.

8840 ADVANCED COMPUTER ILLUSTRATION

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Intro. to Computer Illustration

Description: Advanced Computer Illustration will focus on honing the students Illustrator skills. Students will learn to use and create custom brushes, patterns, styles, envelopes, and filters. They will also learn to incorporate files from Photoshop and other programs and will create a digital portfolio of their work. This class is offered on a rotating schedule.

8843 3D DESIGN AND ANIMATION

Grades 9-12

.5 Credit/1 Trimester



Prerequisite: None

Description: 3D Design and Animation will be a course to introduce students to the concepts and software used to create 3D environments. 3D design and animation is used heavily in today's movies, video games, engineering, and architecture. Students will learn how to create 3D objects, apply colors and textures, and animate the object.

8844 INTRODUCTION TO GLASS MOSAIC

Grades 9-12

.5 Credit/1 Trimester



Prerequisite: None

Description: In this course, students will study mosaics as an art form including the historical context, aesthetics and art criticism. Students will learn various basic techniques for creating individual artwork and will become familiar with tools, techniques, terminology, and mixed media used in creating a mosaic.

4810 AP STUDIO ART

Grade 12

1.5 Credits/3 Trimesters



Prerequisite: All students enrolled in AP level course must have completed previous courses from the art sequence and/or have permission from the instructor.

Description: AP Studio Art is an in-depth, advanced-level course focused on the creation of a portfolio for the College AP portfolio examination. The course is a full-year course focusing on the three sections of the portfolio: breadth, concentration, and quality in the student's chosen area of focus. Students will be expected to produce a minimum of 25 high quality pieces for the portfolio with the expectation of the completion of 4 finished works completed over summer break. Students are also required to keep a sketchbook. They will participate in some type of field study (i.e. local field trip to an art museum) to further augment their knowledge of the arts. Students will participate in group and individual critiques. Students will achieve a high understanding of both criticism and aesthetics and apply it to their work and others. This advanced level course allows for the growth of students not only technically but also conceptually in their chosen area of focus.

4808 AP ART HISTORY
Grades 11-12
1.5 Credits/3 Trimesters



Prerequisite: None

Description: This course will engage students at the same level as an introductory college art history survey class. This class will involve critical thinking and students will develop an understanding and knowledge of diverse historical and cultural contexts of architecture, sculpture, painting and other media. In this course, students examine and critically analyze major forms of artistic expression from the past and the present from a variety of cultures. Art history emphasizes understanding how and why works of art function in context, considering such issues as patronage, gender and the functions and effects of works of art. Students are required to do summer work prior to the beginning of the course including a museum visit and writing reflection.

English and Communication Skills

Graduation Requirements

All students must fulfill the district's graduation requirements of 5.0 credits of English (equivalent to 4 years) in grades 9-12.

Placement in Courses

In order to achieve and grow in English and communication skills, it is crucial that students be placed in the appropriate course at the appropriate time. Care will be given to assure that students have the requisite skills for success in a particular course before enrollment is approved.

Placement or continuation in honors level courses will be based on:

1. Grades in previous English courses
2. Scores on standardized tests of aptitude and achievement in both reading and writing areas
3. Recommendation of the previous year's teacher

COURSE EXPECTATIONS (HONORS ENGLISH—4000 LEVEL COURSES)

Reading expectations

- Literature selections will be challenging in terms of readability, vocabulary, and length. Literature study will focus on analyzing, synthesizing, and evaluating and will assume the student is able to comprehend and interpret texts independently.
- Students are required to read the equivalent of at least **four** major works during this course. In addition, they will read pieces of shorter fiction, non-fiction, and poetry.
- Students are encouraged to read a summer reading selection from the Sewickley Area Libraries (SAL) summer reading list.
- Students enrolled in Honors English 11 and AP English Literature and Composition are expected to complete a summer reading assignment, as these are advanced, accelerated courses.

Writing expectations

- Prerequisite writing skills: Students are expected to be able to write an essay that is focused, and uses specific support and elaboration. These essays should also be clearly organized and structured including effective topic sentences, transitions, introduction, and conclusion. Students are also expected to use a variety of sentence types and lengths in their writing, and show a mastery of basic writing conventions such as mechanics, usage, and grammar. Writing instruction will build on these skills and focus on enhancing style and voice.
- Students will complete the equivalent of a minimum of four formal writings during this course. In addition, students are required to complete multiple informal writings per term.

Other expectations

- Students are required to possess a consistent and positive work ethic and the ability to work independently. Students are also expected to be well organized and able to manage their time efficiently.
- Participation in daily discussions and oral presentations is an integral part of this course. Each term grade includes an assessment of student participation in class discussions.
- Students are required to complete **at least 4-6 hours of work per week** outside of the regular school day.

COURSE EXPECTATIONS (ENGLISH—3000 LEVEL COURSES)

Reading expectations

- Students are required to read and comprehend texts studied in class.
- Literature study will focus on comprehending, interpreting, analyzing, synthesizing and evaluating.
- Students are required read the equivalent of at least **three** major works during this course. In addition, they will read pieces of shorter fiction, non-fiction, and poetry.

- Students are encouraged to read a summer reading selection from the Sewickley Area Libraries (SAL) summer reading list.

Writing expectations

- Students will be taught to create essays that are focused, and use specific support and elaboration. These essays will also be clearly organized and structured including effective topic sentences, transitions, introduction, and conclusion. Students will also learn to use a variety of sentence types and lengths in their writing, and show a mastery of basic writing conventions such as mechanics, usage, and grammar.
- Students will complete the equivalent of a minimum of three formal writings during this course. In addition, students are required to complete multiple informal writings per term.

Other expectations

- Students will possess a consistent and positive work ethic. Students are also expected to be well organized and able to manage their time efficiently.
- Students are expected to participate in daily discussions and oral presentations.
- Students will complete an average of 2-3 hours of work per week outside of the regular school day.

3108 ENGLISH AND COMPOSITION 9

Grade 9

1.5 Credits/3 Trimesters



Prerequisite: English 8

Description: This course focuses on developing competency in reading, writing, literary analysis, speaking and listening, critical thinking, organization, vocabulary, and grammar. Students will read and analyze multicultural plays, novels, short stories, and poems in addition to nonfiction texts such as current event articles, essays, and speeches. The course devotes 12 weeks to grammar and composition, refining students' writing skills through the writing and revision process and applying practiced grammar and usage concepts. Students will learn and apply research skills for a sustained research project, evaluating and synthesizing multiple sources pertaining to a single topic. Writing assignments will encompass various modes, such as informative/explanatory, opinion/argumentative, narrative, response to literature, research, and creative writing. Reading and writing skills will be applied to "cold read" assessments at the conclusion of appropriate units or terms. Vocabulary will be taught in context of selected texts. Literary devices will be reviewed and taught as appropriate to analyzing literature.

4108 HONORS ENGLISH AND COMPOSITION 9

Grade 9

1.5 Credits/3 Trimesters



Prerequisite: 4000-level ELA 8 or recommendation of teacher from preceding year

Description: This course focuses on developing aptitude in reading, writing, literary analysis, speaking and listening, critical thinking, organization, vocabulary, and grammar. Students will independently read and analyze multicultural plays, novels, short stories, and poems in addition to nonfiction texts such as current event articles, essays, and speeches. The course devotes 12 weeks to grammar and composition, refining students' writing skills through the writing and revision process and applying practiced grammar and usage concepts. Writing lessons will focus on enhancing style and voice as well as incorporating a perceptive selection of evidence. Students will learn and apply research skills as well as evaluating and synthesizing multiple sources pertaining to a single topic. Writing assignments will encompass various modes, such as informative/explanatory, opinion/argumentative, narrative, response to literature, research, and creative writing. Reading and writing skills will be applied to "cold read" assessments at the conclusion of appropriate units or terms. Vocabulary will be taught in context of selected texts. Literary devices will be reviewed and taught as appropriate to analyzing literature. Higher-order thinking will be stressed throughout the year.

3110 ENGLISH 10
Grade 10
1.5 Credits/3 Trimesters



Prerequisite: English and Composition 9

Description: This course focuses on reinforcing and further developing competency in reading, writing, literary analysis, speaking and listening, critical thinking, organization, vocabulary, and grammar. Students will read and analyze plays, novels, short stories, and poems in addition to nonfiction texts such as current event articles, essays, and speeches. Students will refine their grammar skills through the writing and revision process as well as through grammar-specific lessons and activities. The course devotes 12 weeks to speaking and listening through the study and analysis of effective speech and composition of original speech. Students will apply research skills when writing speeches and literary analysis compositions. Writing assignments will encompass various modes, such as informative/explanatory, opinion/argumentative, narrative, response to literature, research, and creative writing. Reading and writing skills will be applied to “cold read” assessments at the conclusion of appropriate units or terms. Vocabulary will be taught in context of selected texts. Literary devices will be reviewed and taught as appropriate to analyzing literature.

4110 HONORS ENGLISH 10
Grade 10
1.5 Credits/3 Trimesters



Prerequisite: Honors English and Composition 9

Description: This course focuses on reinforcing and further developing aptitude in reading, writing, literary analysis, speaking and listening, critical thinking, organization, vocabulary, and grammar. Students will independently read and analyze plays, novels, short stories, and poems in addition to nonfiction texts such as current event articles, essays, and speeches. Students will refine their grammar skills through the writing and revision process as well as through grammar-specific lessons and activities. Writing lessons will focus on enhancing style and voice as well as incorporating a perceptive selection of evidence. The course devotes 12 weeks to speaking and listening through the study and analysis of effective speech and composition of original speech. Students will apply research skills when writing speeches and literary analysis compositions. Writing assignments will encompass various modes, such as informative/explanatory, opinion/argumentative, narrative, response to literature, research, and creative writing. Reading and writing skills will be applied to “cold read” assessments at the conclusion of appropriate units or terms. Vocabulary will be taught in context of selected texts. Literary devices will be reviewed and taught as appropriate to analyzing literature. Higher-order thinking will be stressed throughout the year.

3111 ENGLISH 11
Grade 11
1 Credit/2 Trimesters

Prerequisite: English 10

Description: This course focuses on reinforcing and further developing propensity in reading, writing, literary analysis, speaking and listening, critical thinking, organization, vocabulary, and grammar. Students will read and analyze plays, novels, short stories, and poems in addition to nonfiction texts such as current event articles, essays, and speeches. Students will refine their grammar skills through the writing and revision process as well as through grammar-specific lessons and activities. Writing lessons will focus on mastering style and voice as well as incorporating a perceptive selection of evidence. Writing assignments will encompass various modes, such as informative/explanatory, opinion/argumentative, narrative, response to literature, research, and creative writing. Reading and writing skills will be applied to “cold read” assessments at the conclusion of appropriate units or terms. Vocabulary will be taught in context of selected texts. Literary devices will be reviewed and taught as appropriate to analyzing literature.

4111 HONORS ENGLISH 11
Grade 11
1 Credit/2 Trimesters

Prerequisite: Honors English 10

Description: This course focuses on reinforcing and further developing propensity in reading, writing, literary analysis, speaking and listening, critical thinking, organization, vocabulary, and grammar. Students will independently read and analyze plays, novels, short stories, and poems in addition to nonfiction texts such as current event articles, essays, and speeches. Students will refine their grammar skills through the writing and revision process as well as through grammar-specific lessons and activities. Writing lessons will focus on mastering style and voice as well as incorporating a perceptive selection of evidence. Students will thoroughly research a selected author’s life and works, analyze his/her impact on American literature, and convincingly argue a comprehensive literary

analysis. Writing assignments will encompass various modes, such as informative/explanatory, opinion/argumentative, narrative, response to literature, research, and creative writing. Reading and writing skills will be applied to “cold read” assessments at the conclusion of appropriate units or terms. Vocabulary will be taught in context of selected texts. Literary devices will be reviewed and taught as appropriate to analyzing literature. Higher-order thinking will be stressed throughout the year.

4113 AP ENGLISH LITERATURE AND COMPOSITION

Grade 12

1.5 Credits/3 Trimesters



Prerequisite: Honors English 11

Description: The AP English Literature and Composition course engages students in the careful, perceptive reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. In the broadest sense, this close reading involves the experience of literature, the interpretation of literature, and the evaluation of literature. In more specific terms, the close reading expectations demand that students consider a work’s structure, themes, and characterization, as well as such smaller-scale elements as the use of figurative language, imagery, and different types of repetition. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit that build upon the reading completed in previous English courses. Students will also read and analyze different types of poetry, from the sonnet to the sestina, and ultimately complete an intensive poetry research project. Writing assignments primarily focus on the critical analysis of literature and include expository, analytical, and argumentative essays, yet there are also opportunities for professional writing, creative writing, and writing critical reviews. Throughout the course, emphasis is placed on assisting students develop stylistic maturity in their own writing. Students are required to take the AP Literature and Composition exam.

8101 INTRODUCTION TO JOURNALISM

Grades 10 – 12

.5 Credit/1 Term



Prerequisite: None

Description: Students will study the fundamental principles of reporting and writing so as to stress accuracy, brevity, and clarity. Issues of reportorial responsibility, freedom of the press, and the history of American journalism will be examined. The course will explore the skill sets necessary for writing hard news stories, features, opinions, reviews, sports-related stories, and other pieces. Students will closely read pieces of modern journalism as models. Basic editing skills, production, and an introduction to desktop publishing will round out the course.

8116 21st CENTURY ENGLISH

Grade 12

.5 Credit/1 Trimester



This course is mandatory unless taking AP English Literature or CHS Argument, Communication, and Rhetoric.

Description: This course is designed to empower students to investigate, understand and better manage factors that affect one’s values, global perspective, career opportunities, decision-making abilities, sense of duty and overall success as independent adults. Specifically, our class will encompass an eclectic study of contemporary fiction and nonfiction, including social science, relevant news stories, novels, memoir passages, poetry and career coaching. Students will be required to utilize technology regularly and responsibly, ranging from proper online etiquette to Noodle Tools research. Furthermore, students will sharpen and effectively demonstrate their “soft skills” (i.e. listening, empathy, clarity and concision in writing/speaking, confidence, open-mindedness, etc.) for such tasks as job interviewing, Socratic seminars, reflections, debates, and various projects/presentations.

8117 SCIENCE FICTION LITERATURE

Grade 12

.5 Credit/1 Trimester

Prerequisite: English 11

Description: This course will focus on the definition, message, method, and impact of science fiction. Students will read critically-acclaimed literature and thematically related articles, explore issues on the Internet, and scrutinize the genre in popular culture. Through writing, online exchanges, and classroom discussions and presentations, students will share their findings and viewpoints regarding this unique and powerful genre. Students are required to read one science fiction novel in addition to shorter works of literature and non-fiction texts which enhance their understanding about the genre.

8118 ELEMENTS OF HUMOR

Grade 12

.5 Credit/1 Trimester

Prerequisite: English 11

Description: This course will explore the fundamentals of comedy. What makes people laugh and why? Is there a theory of humor connecting all varieties of comedy? What are the effects of humor on the individual and society? Students will be exposed to school-appropriate novels and other readings, standup, and excerpts from radio, film and television that exemplify the theories, genres, types, and devices of humor covered in class. Students are required to read one novel in addition to shorter works of literature and non-fiction texts which enhance their understanding about the genre.

8122 SPORTS LITERATURE

Grade 12

.5 Credit/1 Trimester

Prerequisite: English 11

Description: This course will focus on both fiction and nonfiction sports literature. Students will read thematically related articles, explore issues on the Internet, and scrutinize the genre in popular culture. Students will study and research specific sports-related topics such as rivalries, Pittsburgh sports, and the Olympics. Through writing, online exchanges, and classroom discussions and presentations, students will share their findings and viewpoints regarding this genre. Students are required to read one sports-related novel in addition to shorter works of literature and non-fiction texts which enhance their understanding about the genre.

8910 CHS ARGUMENT, COMMUNICATION AND RHETORIC

Grade 11 or 12

1 Credit/2 Trimesters



Prerequisite: None

Description: This College In High School (CHS) course (available for three University of Pittsburgh credits) teaches students to recognize, explain, research, construct, present and critique arguments. Assignments invite students to create their own research-based arguments, express them capably to peers and instructors, eloquently refute competing arguments, and judge the soundness of arguments made by others. Students will also explore and utilize key concepts of argumentation theory as a means to enhance their argument skills in a variety of both oral and written activities that feature lively intellectual interchange. Classroom activities will include impromptu SPAR debates (i.e. spontaneous argumentation), Lincoln-Douglas debates, parliamentary debates, Socratic seminars, mock trial and other role-playing activities. Students will also complete a comprehensive midterm exam (focusing on argument theory) as well as collaborate with peers in conducting research for competitive, formal debates.

8108 MYTHOLOGY

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Description: The course will examine Greek mythology and its cultural influence over the years. Students will explore how ancient societies used myth to explain the world and the meaning of human existence. The course will focus on creation and etiological myths, instructive myths, hero myths, and Joseph Campbell's hero cycle. The course will make use of modern media as well as written literature. Students will gain an understanding of how mythology has profoundly influenced not only literature but also heavily impacted on art, literary criticism, music, psychology, religion, cinema, and television. By exploring the influence of mythology on the modern world, the student will recognize how cultural identities are still shaped by timeless tales penned by some of the world's greatest writers.

8113 CREATIVE WRITING

Grades 9-12

.5 Credit/1 Trimester

Prerequisite: None.

Description: This course focuses on generating free writing in a journal, studying models of good writing, and experimenting with poetry and prose. Students will develop a sense of speaker and audience. They will provide positive support for their fellow writers and learn to revise their work using concrete, sensory details and appropriate choice of diction, syntax, purpose, and audience. Students will also learn techniques for evaluating syntax, tone, purpose, and audience and will learn techniques for evaluating writing. These techniques will be used to evaluate submissions for the school literary magazine, *Bittersweet*, which is a co-curricular activity. Therefore, students taking this class may also choose to become a part of the *Bittersweet* staff, although participation is not required for the course.

8123 ADVANCED CREATIVE WRITING

Grade 12

.5 Credit/1 Trimester

Prerequisite: Creative Writing

Description: This course will focus on students' written expression both in poetry and prose. Students will read a variety of writing including authors such as Poe, Chaucer, Alighieri, Dickinson, and Homer. Students will write to emulate these authors as well as develop their own style and voice. Students are expected to write daily. Students will write both poetry and short prose. Students will be expected to analyze poems and prose and discuss their literary value. Students are expected to share their work with the class and submit to the school literary magazine, *Bittersweet*.

8115 LITERATURE ON THE STAGE THEATER I

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisite: None

Description: Students will read and perform selections from various works of established playwrights. Students will analyze the use of language, space, movement, etc. in realizing a playwright's vision for the stage. Students will consider the actor's use of subtext as well as verbal and non-verbal communication skills in preparing and executing a performance. Furthermore, students will apply all class concepts to a live theatrical performance and analyze the chemistry between audience and cast. Finally, students will develop and apply 21st Century skills in creating a collaborative, original piece of theater in order to raise audience awareness on a particular social issue.

8121 LITERATURE ON STAGE THEATER II

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisite: None

Description: Students will read and perform selections from playwrights of classic Greek theatre (i.e. comedy and tragedy) as well as more contemporary, established playwrights. Students will analyze the use of language, space, movement, etc. in realizing a playwright's vision for the stage. Students will also investigate and apply historical influences on a piece of dramatic text and collaborate in creating adaptations on stage. Students will experience a live theatrical performance in order to understand the chemistry between audience and cast.

Family and Consumer Sciences

The mission of the Family and Consumer Sciences program is to have individuals actively participate in the improvement of the quality of individual and family life in a changing society. Family and Consumer Sciences empowers individuals, strengthens families, and enables communities.

8701 FOODS I

Grades 9-12

.5 Credit/1 Trimester

Prerequisites: None

Description: Students will become familiar with and develop skills in the practical application of food preparation with a focus on flavor profiles. Students will plan, select, and prepare food products from a variety of global regions in order to gain an understanding of unique preparation techniques and culinary equipment.

8708 COOKING ESSENTIALS

Grades 9-12

.5 Credit/1 Trimester

Prerequisites: None

Description: Students will learn the essential skills for preparing healthy foods. An introduction to the fundamentals of knife skills, food selection and storage, use of herbs and spices, baking, and other rudimentary culinary concepts will encourage informed food preparation and selection. Students will be equipped with the knowledge of proper preparation techniques and the know how to apply the information to everyday life.

Computer Science

The demands of today's high-tech world require students to be computer literate. The challenge we have is preparing these students. Academics and technology must come together to meet and exceed this challenge.

The curriculum outlined will go beyond a basic understanding of computers. Technology continually changes; therefore, students must be taught how to adapt to those changes. Students will learn what a valuable tool the computer has become and the impact it will continue to have on our daily lives. From hardware to software, networks to desktops, programming to applications, students will be prepared for today's high-tech world.

Note: The following Computer Science Courses may be used in place of 1 full year math or science course for graduation: AP Computer Science Principles, AP Computer Science A (QVO), Intro to Computer Programming w/Python.

3706 INTRODUCTION TO NETWORKING

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None.

Description: In Introduction to Networking, students will acquire competencies to build, configure, upgrade and maintain a personal computer system. Utilizing relevant workplace safety and environmental standards during computer maintenance, students will provide computer hardware and software support by diagnosing and resolving hardware and software problems, and installing and configuring various computer peripheral devices. Students will also setup and maintain a local area network and resolve network connectivity problems using a systematic troubleshooting approach. At the end of this course students should possess the academic knowledge and skills aligned with CompTIA's A+ Certification standards.

3703 INTRODUCTION TO WEB DESIGN

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None.

Description: In the Introduction to Web Design, students focus on understanding the World Wide Web (WWW) as they design, analyze, program and publish web pages in HTML (Hypertext Markup Language). The course explores web site basics with particular emphasis on the construction of web pages using an ordinary text editor to create and edit programming code. Hands-on web design exercises will be taught where the students will program web links, formatting page elements, add graphics and multimedia, work with frames and tables, and use forms to control input. Teacher-directed lectures, hands-on laboratories and projects will comprise the majority of the lessons. Demonstrations and lectures will permit the students to construct a full functioning website and publish their product on the World Wide Web.

3704 ADVANCED WEB DESIGN

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: 3703 Introduction to Web Design

Description: The Advanced Web Design course explores the power of the World Wide Web by providing an intense classroom and laboratory experience with hands-on web design exercises utilizing Adobe Dreamweaver to design, analyze and publish their own websites like professionals. The course focuses on website architecture with particular emphasis on design elements involving layout, navigation and interactivity. Teacher directed lectures, hands-on laboratories and projects will comprise the majority of the lessons. Demonstrations and lectures on the Adobe software packages will permit the students to construct a full functioning website and publish their product on the World Wide Web.

3711 INTRODUCTION TO JAVA PROGRAMMING
Grades 9 - 12
.5 Credits/1 Trimester



In this beginning programming course, students are introduced to fundamental topics in computer science that develop and implement logic and analytical skills using the Java syntax; to build a foundation of the basic concepts and methods of object-oriented programming and object-oriented design. This course will focus on the programming language of Java. Java enables the development of software that is reliable, secure, platform independent, dynamically adaptable and network enabled. Students will design, create/program and debug a variety of Java applications (stand-alone programs) and ‘applets’ (programs meant to execute within a web browser). The use of real-world examples from business, science, engineering, mathematics and recreation will help illustrate the importance and complexity of an object-oriented programming language.

3712 INTRODUCTION TO COMPUTER PROGRAMMING WITH PYTHON
Grades 9-12
1.5 Credits/3 Trimesters



Prerequisite: None.

Description: This course is designed for students with little or no prior experience with programming computers. The course has been developed in conjunction with Carnegie Mellon’s School of Computer Science (CS1) and is a broad introduction to Computer Science within grades 9-12. Python is an easy-to learn, high-level computer language that is used in many computational courses and disciplines. Students will learn the basics and gradually harness the power of Python’s more advanced features to make games and solve real- world problems. All students will have the opportunity to learn coding skills, programming, and computer science, in this fun and engaging course. The best way to learn to program is by doing; therefore, students will be immersed in coding on the first day of class. Throughout the course, students will use graphics that are visually engaging, solve problems that allow for multiple correct solutions, and work through creative tasks that let students explore topics of interest.

4450 AP COMPUTER SCIENCE PRINCIPLES
Grades 10-12
1.5 Credits/3 Trimesters



Prerequisite: None

Description: AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles also gives students the opportunity to use current technologies that address real-world problems and build relevant solutions while creating computational artifacts for both self-expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

Mathematics

The mathematics curriculum at Quaker Valley High School approaches instruction through the integration of mathematics strands—algebra, geometry, data analysis, statistics, probability, and discrete math. Real-world applications are a central theme. Technology is an important instructional tool.

Graduation Requirements

All students must fulfill the district's graduation requirements of 4.5 credits of mathematics (equivalent to 3 years) in grades 9-12. This includes the successful completion of an Algebra I course at QVMS or QVHS. *Note: The following Computer Science Courses may be used in place of 1 full year math or science course for graduation: AP Computer Science Principles, AP Computer Science A (QVO), Intro to Computer Programming w/Java.*

Placement in Courses

In order to achieve and grow mathematically, it is crucial that students be placed in the appropriate course at the appropriate time. Care will be given to assure that students have the requisite skills for success in a particular course before enrollment is approved.

Placement or continuation in honors level courses will be based on:

1. Grades in previous math courses
2. Scores on standardized tests of aptitude and achievement in both mathematics and reading areas
3. Recommendation of the previous year's teacher

3405 ALGEBRA I

Grade 9-12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Math 8

Description: The Algebra I course focuses on linear functions and inequalities and non-linear functions, such as, quadratics and exponentials. There is also an emphasis on probability and data analysis. The course stresses multiple representations for functions including written problem statements, formulas, graphs, and tables. A portion of the classwork will be completed on an independent computer program.

3420 COMPUTER ALGEBRA II

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Algebra I

Description: Students will study and apply the language of algebra including the notion of solving various types of equations and inequalities, which may also include identifying, evaluating and graphing functions (linear, exponential, quadratic, cubic, and absolute value) and build heavily on the concepts covered in Algebra. A portion of the classwork will be completed on an independent computer program.

3421 ALGEBRA II

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of *Geometry with Algebra Topics*

Description: Algebra II students will study and apply the language of algebra including the notion of solving various types of equations and inequalities, which may also include identifying, evaluating and graphing functions (linear, piecewise, step, exponential, quadratic, logarithmic, polynomial, rational and trigonometric). Students will also be introduced to right triangle and unit circle trigonometry and its various applications. Real world applications are a central theme with technology as an important instructional tool.

4421 HONORS ALGEBRA II

Grades 9-10

1.5 Credit/3 Trimesters

Prerequisite: Successful completion of *Geometry with Algebra Concepts*

Description: Algebra II students will study and apply the language of algebra including the notion of solving various types of equations and inequalities, which may also include identifying, evaluating and graphing functions (linear, piecewise, step, exponential, quadratic, logarithmic, polynomial, rational and trigonometric). Students will also be introduced to right triangle and unit circle trigonometry and its various applications. Real world applications are a central theme with technology as an important instructional tool. This course will be of greater scope and depth and will move at a faster pace with a higher degree of rigor than the 3000-level course of the same name.

3415 GEOMETRY WITH ALGEBRA TOPICS

Grades 9-12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Math 8 or Algebra I

Description: In the first half of the course, students will continue to investigate algebraic topics developed in the previous course. These topics include but are not limited to linear equations, the real number system, exponents, scientific notation, patterns, and inequalities. In the second half of the course, students will focus on geometric topics. These topics include but are not limited to polygons, parallels, triangle congruence, similarity, volume, surface area, geometric probability, and circles (if time permits).

3407 COMPUTER GEOMETRY

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Algebra I

Description: Students will work with the language and logic of geometry, reflections, concepts of congruence and similarity, and two- and three - dimensional figures. There will be a focus on writing sequences of statements and on simple proofs in various forms. Work with coordinate geometry and indirect proofs will also be discussed. A portion of the classwork will be completed on an independent computer program.

3411 FUNCTIONS, STATISTICS, AND TRIGONOMETRY

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Algebra II

Description: Functions, Statistics, and Trigonometry (FST) will study and analyze descriptive and inferential statistics, probability, combinatorics. Students will also study and focus on various types of functions, including but not limited to exponential, logarithmic, and trigonometric functions and will build heavily upon the concepts covered in Algebra II. Algebraic, statistical and trigonometric concepts will be integrated throughout the course with an emphasis on their application in the real world.

4410 HONORS FUNCTIONS, STATISTICS, AND TRIGONOMETRY

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Honors Algebra II

Description: Honors Functions, Statistics, and Trigonometry (FST) will study and analyze descriptive and inferential statistics, probability, combinatorics, and hypothesis testing. Students will also study and focus on various types of functions, including but not limited to exponential, logarithmic, rational, and trigonometric functions and will build heavily upon the concepts covered in Algebra II through routine problems and formal proof. Algebraic, statistical and trigonometric concepts will be integrated throughout the course with an emphasis on their application in the real world. This course will be of greater scope and depth and will move at a faster pace with a higher degree of rigor than the 3000-level course of the same name.

3413 PRECALCULUS
Grades 9 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of FST

Description: Precalculus covers a wide range of topics including a review of the elementary functions (algebraic, polynomial, exponential, logarithmic, trigonometric) and introductions to limits, the difference quotient, the derivative, and other calculus concepts. Further focus will be placed on moving efficiently and fluidly from one representation of a function to another (algebraic, visual, numeric, verbal). Students will be expected to handle the integration of technology so as to enhance course concepts and deepen conceptual understanding, as well as to thoroughly communicate their thought processes both verbally and in their written work.

4408 HONORS PRECALCULUS
Grades 10 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Honors FST

Description: Honors Precalculus covers a wide range of topics including a review of the elementary functions (algebraic, polynomial, exponential, logarithmic, trigonometric), further exploration of advanced functions (inverse trigonometric, parametric, polar, vector, matrix), and introductions to limits, the derivative, and other calculus concepts. The textbook will be supplemented early and often to include additional elements of calculus where appropriate. Higher level mathematical thinking and justification, including specific attention to formal proof and comparing structures, are unifying themes employed throughout the course. The graphing calculator and other technologies will be important instructional tools as further focus will be placed on moving efficiently and fluidly from one representation of a function to another (algebraic, visual, numeric, verbal). Throughout the school year, students will be expected to thoroughly communicate their thought processes both verbally and in their written work. This course will be of greater scope and depth and will move at a faster pace with a higher degree of rigor than the 3000-level course of the same name.

4412 AP CALCULUS (AB)
Grade 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Honors Precalculus and required summer work

Description: The syllabus for this course was developed by The College Board in close collaboration with college faculty. The course covers a wide range of topics that are consistent with first-semester single-variable college calculus and emphasizes a multi-representational approach to the subject with concepts and big ideas routinely expressed graphically, numerically, algebraically, and verbally. Students will study topics including analysis of graphs, limits, continuity, computations of derivatives, applications of derivatives, Riemann sums, anti-derivatives, methods of integration, properties and applications of integrals, the Fundamental Theorem of Calculus, and differential equations. Additional topics beyond those required by The College Board may be added as time permits. This course requires annual accreditation by The College Board and, as a result, will routinely be adjusted in scope, pace, and level of rigor to closely match AP course requirements. In preparation for the mandatory AP Exam given in May, students must clearly and thoroughly communicate all thought processes in their written work.

4415 AP CALCULUS (BC)
Grade 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Honors Precalculus and required summer work

Description: The syllabus for this course was developed by The College Board in close collaboration with college faculty. The course covers a wide range of topics that are consistent with first and second semester single-variable college calculus and emphasizes a multi-representational approach to the subject with concepts and big ideas routinely expressed graphically, numerically, algebraically, and verbally. Students will study topics including analysis of graphs, limits, continuity, computations of derivatives, applications of derivatives, Riemann sums, anti-derivatives, methods of integration, properties and applications of integrals, the Fundamental Theorem of Calculus, and differential equations. Second-semester topics will include, but are not limited to, the study of parametric, polar, and vectors functions, a detailed analysis of sequences and series, improper integrals, and the Logistic Differential Equation. (Please note that AP Calculus BC is an extension to AP Calculus (AB) rather than an enhancement. To that effect, the pace and level of rigor will be substantially great than that of its (AB) counterpart.) This course requires annual accreditation by The College Board and, as a result, will routinely be adjusted in scope, pace, and level of rigor to closely match AP course requirements. In

preparation for the mandatory AP Exam given in May, students must clearly and thoroughly communicate all thought processes in their written work.

8913 COLLEGE IN HIGH SCHOOL CALCULUS

Grades 11 - 12

1.5 Credits or 4 College Credits/3 Trimesters

Prerequisite: Precalculus

Description: This course produces an introduction to calculus for students interested in business, economics, and other Social Studies. Students will study topics including functions, limits and continuity, differentiation, applications of differentiation, integration, exponential, logarithmic functions, arithmetic and geometric progressions, and an introduction to multi-variable calculus.

8405 STATISTICS

Grades 11 - 12

1.5 Credit/3 Trimesters

Prerequisite: Algebra II or Computer Algebra II

Description: The course topics will include exploring data, planning a study, producing models using probability theory, and making statistical inferences. Students will work with statistical measures of centrality and spread, methods of data collection methods of determining probability, binomial and normal distributions, confidence intervals, and an introduction to hypothesis testing, and confidence intervals. Students will use multiple representations to present data including written descriptions, numerical statistics, formulas and graphs.

4413 AP STATISTICS

Grades 11 - 12

1.5 Credit/3 Trimesters

Prerequisite(s): Successful completion of Algebra II

Description: The syllabus for this course was developed by The College Board in close collaboration with college faculty. This course will introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to the four broad concepts of exploring data, sampling and experimentation, anticipating patterns by exploring random phenomena using probability and simulation, and statistical inference. Additional topics beyond those required by The College Board may be added as time permits. This course requires annual accreditation by The College Board and, as a result, will routinely be adjusted in scope, pace, and level of rigor to closely match AP course requirements. In preparation for the mandatory AP Exam given in May, students must clearly and thoroughly communicate all thought processes in their written work.

Music

Music, as an academic subject incorporates aspects of mathematics, physics, physical education, history, and world languages. Music as an art allows for aesthetic growth for all who perform and listen. And music as a discipline/craft teaches and encourages the development of discipline, perseverance, teamwork, and leadership—among many other personal skills.

It is our aim to expose all students to a wide variety of musical styles and musical time periods through the study, preparation and performance of exemplary musical literature in both small and large ensembles. Band, orchestra, and chorus are co-curricular courses and have requirements that extend beyond the normal school day. Furthermore, the curriculum offers opportunities for all students in music theory and general music/music appreciation.

8799 HONORS BAND **Grades 9 - 12** **1.5 Credits/3 Trimesters**



Prerequisite: Current member of the band program or audition by the conductor

Description: Students will be taught proper instrumental and ensemble technique. Emphasis is placed on the development of musicianship through progressive technical studies, the development of tone quality, phrasing, articulation, all major and minor scales, rhythmic patterns, meters, trills, and embellishments, and music reading skills. Emphasis is also placed on age-appropriate musicianship/aesthetic response including rehearsal and concert etiquette, and responsibilities associated with membership in a performing organization. The repertoire for marching band and concert band will consist of traditional and contemporary literature, including transcriptions, marches, and show music. The students will rehearse a large variety of music and prepare selected pieces for performance and adjudication. Students in the high school band program will have the opportunity to participate in junior and senior high PMEA festivals, as well as county/regional festivals.

8798 CONCERT BAND **Grades 9-12** **1.5 Credit/3 Trimesters**



(same as above however students who choose this course will not be part of the marching band program and will not receive honors credit)

8802 STRING ORCHESTRA **Grades 9 - 12** **1.5 Credit/3 Trimesters**



Prerequisite: Current member of the orchestra program or audition by the conductor

Description: Students will be taught proper instrumental and ensemble technique. Emphasis is placed on the development of musicianship through progressive technical studies, the development of tone quality, phrasing, articulation, all major and minor scales, rhythmic patterns, meters, trills, and embellishments, and music reading skills. Emphasis is also placed on age-appropriate musicianship/aesthetic response including rehearsal and concert etiquette, and responsibilities associated with membership in a performing organization. The repertoire will consist of traditional and contemporary literature for string orchestra. The students will rehearse a large variety of music and prepare selected pieces for performance and adjudication. Students in the high school orchestra program will have the opportunity to participate in junior and senior high PMEA festivals, as well as county/regional festivals.

8823 COMPREHENSIVE MUSICIANSHIP **Grades 9-12** **.5 credits/1 Trimester**



Description: Comprehensive Musicianship is a one-term course designed for all students who would like to expand their knowledge of fundamental music concepts. The curriculum covers basic to intermediate concepts within all aspects of music theory. Topics include music-reading skills, rhythm, scales, keys, harmony, melody writing/song writing and arranging. Comprehensive Musicianship may be taken as its own course, or as the mandatory prerequisite for AP Music Theory.

4822 AP MUSIC THEORY
Grades 11-12
1.0 Credits/2 Trimesters



Prerequisite: Students must successfully pass both the “Comprehensive Musicianship” course as well as any summer work as assigned. Students who wish to study music theory at the collegiate level should possess the ability to read and play musical notation and be proficient at a high school level as a vocalist or instrumental. Students who do not have a primary instrument or voice part and/or cannot read music notation are not recommended for AP Music Theory under most circumstances.

Description: Advanced Placement Music Theory is designed to fully develop the student’s ability to recognize, understand, describe and implement the materials and processes of music that are heard or presented in a score. The course will instill mastery of the elements of music, including intervals, scales, chords, rhythmic patterns, and the terms used to describe these elements as they relate to the Western tonal music system. Students will explore sophisticated harmonization techniques and analytical techniques, sight-singing and keyboard skills, and advanced compositional techniques. AP Music Theory encompasses topics of study and activities typical of the first two years of undergraduate music study and is appropriate for advanced musicians.

8803 CONCERT CHOIR
Grades 9 - 12
1.5 Credits/3 Trimesters



Prerequisite: Recommendation of instructor and/or satisfactory audition with the Director

Description: Students will be taught emphasizing proper vocal technique, ensemble technique, and music reading skills. Emphasis is on age-appropriate musicianship/aesthetic response including rehearsal and concert etiquette, and responsibilities associated with membership in a performing organization. Repertoire consists of traditional and contemporary literature of various vocal genres.

8824 PARTNERS MUSIC
Grades 9-12
0.5 Credit per Trimester



Prerequisite: Recommendation of instructor.

Description: Students with physical or cognitive disabilities benefit from partnering with typical peers. The focus of this course will be on developing individual skills and musicianship through collaborative activities. Course content will include basic piano skills, singing, group performance, and learning music through movement (eurhythmics), along with other aspects of general music. Emphasis is on age-appropriate musicianship/aesthetic response to music. Activities will be designed with consideration of various student ability levels.

Physical Education/Wellness

The goal of physical education/wellness education is to promote individual development of the knowledge, skills, behaviors and attitudes associated with regular participation in physical activity, physical fitness, and health and wellness.

8005 HEALTH & WELLNESS I

Grades 9 or 10

.5 Credit/1 Trimester

Prerequisite: None

Description: This course is an extension of the middle school program with a more sophisticated approach and the addition of several new areas of study. At the high school level, individual responsibility for Physical, Mental/Emotional and Social health and wellness is stressed. Students learn that many health-related problems can be prevented, while other issues can be improved, by making healthy choices throughout life. Areas of focus- Mental/Emotional Health: Resiliency, Assertiveness and Self-Confidence. Physical Health: Reproductive Systems, Alcohol's Effects, Communicable Diseases, Cancer. Social Health: Assertiveness, Social Media.

8006 HEALTH & WELLNESS II

Grades 11 or 12

.5 Credit/1 Trimester

Prerequisite: Health and Wellness I

Description: This course is an extension of the Health and Wellness I with a more in-depth examination of several aspects of mental, physical and social well-being and the addition of new health-related areas of focus. Individual responsibility for one's own level of health and wellness throughout the lifespan continues to be emphasized. Students apply health skills such as accessing information, analyzing influences, decision making, goal setting, interpersonal communication, self-management and advocacy to content areas including stress management, suicide prevention, relationship abuse, personal safety, HIV/AIDS, chemical addiction and cardiovascular diseases with certification in American Heart Association adult and Child CPR.

80010 PHYSICAL EDUCATION

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisite: None

Description: Physical Education at the high school level builds on prerequisite skills, knowledge and attitudes developed at the elementary and middle school levels. This course provides a varied curriculum of individual, partner, small group, and team physical activities that rotate from year to year and focuses on increasing competence in a variety of physical activities and developing proficiency in a few. Learning how to learn new skills and being able to apply skills, strategies and knowledge to game situations while demonstrating safety, self-respect and social responsibility in a variety of setting is a focal point of this course. Additionally, assessing, analyzing, improving and maintaining health-related physical fitness now and in the future is emphasized. The physical education course aims to develop the skills, knowledge and attitudes students need in order to maintain fitness, value and enjoy participation in physical activity for a lifetime.

80020 INDEPENDENT PHYSICAL EDUCATION

Grades 10-12

.5 Credits/1 Trimester

Prerequisite: One trimester of Physical Education in school.

Description: Students will demonstrate the advanced knowledge of physical education and fitness by engaging in physical activity independently of the in-school program. Students taking this course will be able to demonstrate the fundamentals of health-related physical fitness through independent activity and research. The independent physical education program at this level is intended for students looking to achieve a higher understanding and more independent education. Students will briefly meet with the instructor to ensure proper completion of the course, but the majority of the course work will be submitted electronically. Achieving health-enhancing levels of physical activity and physical fitness are stressed by completing daily activity logs, weekly reflections, bi-monthly extended response questions, a self-assessment and a final personal project.

80030 PARTNERS PHYSICAL EDUCATION
Grades 10-12
.5 Credits/Trimester

Prerequisite: Application; Teacher Recommendation

Note: This course can either be taken as a Teacher Assistant elective or to fulfill PE requirements.

Description: Students with physical or cognitive disabilities benefit from partnering with peers. Therefore, this physical education course is designed for students to work together to fulfill the mental, physical and social needs of all individuals in a less restrictive environment. The focus of this course will be on individual skill development, fitness, and movement. Activities will be designed with consideration for various student ability levels. Collaboration is encouraged through student pairs or groups working alongside each other. The goal of this class is to foster skill development, fitness and fun for all.

Engineering Technology

Engineering Technology courses enable students to: become technologically literate through exploration of the social and cultural impacts of technology; apply concepts from math, science, social studies, art and language arts; analyze and develop solutions to practical problems; and to implement a variety of instructional strategies including teamwork, simulations, computer modeling, prototyping and research and design.

***Engineering Technology classes also count as Science credit.**

86011 TECHNOLOGY AND ENGINEERING FUNDAMENTALS

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Description: Technology and Engineering Fundamentals is a foundation course in technology for all students in grades 9 through 12. This hands-on course provides an overview of the five areas of technology: bio-related technologies, communications, construction, manufacturing and transportation technology. Students will build a foundation for technological literacy by developing, producing, testing and assessing solutions to technological problems. Also, the impacts of technology will be analyzed. Technology and Engineering Fundamentals is a prerequisite for many of the other technology courses offered at Quaker Valley High School.

8602 ROBOTICS

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Technology and Engineering Fundamentals

Description: This course is designed to use robotics as the organizer to teach engineering design process and programming. Robotics consists of an eclectic mix of mechanics, electronics, programming, engineering, and mathematics. The curriculum is divided into two sections: "Getting Started" and "Programming and Engineering." A comprehensive guide teaches students how to program the VEX Cortex Hardware System as it helps students develop engineering competencies. Students learn at different rates and the curriculum is designed so that students are able to work independently through the lessons.

8603 TRANSPORTATION TECHNOLOGY

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Technology and Engineering Fundamentals

Description: In Transportation Technology, students will develop a basic understanding of transportation technology. In problem-solving activities, students will develop, produce, use and assess transportation vehicles and systems while studying the technical subsystems of propulsion, structure, suspension, guidance, control and support in land, water, air and space environments.

8604 COMPUTER-AIDED DRAFTING AND DESIGN (CADD)

Grades 9 - 12

.5 Credit/1 Trimesters



Prerequisite: Technology and Engineering Fundamentals

Description: In Computer-Aided Drafting and Design (CADD) students will learn to use drafting and design computer software programs and apply them to a variety of drawing and design situations. After a computer hardware/software orientation, students will learn to read and draw several types of technical drawings. This information will then be applied in the design process as students work on a number of architectural and engineering design activities. Students will play the role of professional designers and planners who create design solutions to clients' problems.

8605 CONSTRUCTION TECHNOLOGY/STAGE DESIGN
Grades 9 - 12
.5 Credit per Trimester



Prerequisite: Technology and Engineering Fundamentals

Description: In Construction Systems, students will develop a basic understanding of the behavior of constructed structures. In problem solving activities, students will develop, produce, use and assess structures while studying architectural design, structural engineering and community planning concepts. Students will then apply this knowledge in the design and hands-on construction of stage designs used for the drama musical at Quaker Valley High School. **NOTE: *Students may enroll in this class more than once during the school year.***

Science

The primary goal of the science program is to provide quality science education and serve the educational needs of each student. Science education should create an environment where three significant factors are evident: A) place where students can enhance belief in self; B) a positive learning atmosphere; C) an environment which promotes both freedom and growth as an individual in an ever-changing society.

Graduation Requirements

All students must fulfill the district's graduation requirements of 4.5 credits of Science (equivalent to 3 years) in grades 9-12. This includes the successful completion of a Biology course. *Note: Engineering Technology courses may also be used to fulfill part of the science/technology requirement. In addition, the following Computer Science Courses may be used in place of 1 full year math or science course for graduation: AP Computer Science Principles, AP Computer Science A (QVO), Intro to Computer Programming w/Python.*

Placement in Courses

Since math is an integral part of most higher level science courses, it is important that a student's mathematical ability be factored into any decisions regarding science placement. Courses at the 4000 level generally require high levels of both math and science proficiency.

At the 3000 level, a course is available in chemistry and physics for both the mathematically inclined and those who prefer a less mathematically based course. The latter is indicated as a "concept" course. All 3000 level courses are college preparatory in nature.

HONORS LEVEL REQUIREMENTS

Students wishing to be admitted to Honors Level Science courses will be evaluated based on the following criteria:

1. High level of performance in previous science and math course work
2. Recommendation of previous science teachers
3. Scores on standardized tests

3308 ENVIRONMENTAL BIOLOGY

Grade 9

1.5 Credit/3 Trimesters

Prerequisite: Successful completion of middle school science coursework. Students should be recommended by teachers if they will be required to take this course.

Description: Environmental Biology is an entry-level science course that blends the fields of environmental science, ecology, and biology. The course is designed for students who are not yet being recommended to take a biology course. Areas of emphasis are basic scientific thinking/processes, watersheds and wetlands, chemical properties of water, interactions and systems within the biosphere, global climate, biomes, ecological succession, populations, genetics and evolution. By understanding the natural processes that operate in the world, along with interactions between living and nonliving components in an ecosystem, students will explore the impact that humans have on the environment as well as explore ways to live more sustainably for future generations.

3307 PRINCIPLES OF BIOLOGY

Grade 10 - 11

1.5 Credit/3 Trimesters



Prerequisite: Successful completion of Environmental Biology. Students should be recommended by teachers if they will be required to take this course.

Description: Biology explores the properties of living matter on a molecular, cellular and organismic level. This course teaches the processes and concepts of biology and its importance in everyday life. Biochemistry, cellular organization and reproduction, bioenergetics, environmental studies and ecology are major content items developed and explored. Studies in all areas emphasize universal scientific skillsets and mindsets, such as problem solving, observation, experimentation, evidence-based analysis, as well as communication of findings.

3309 BIOLOGY

Grade 9-10

1.5 Credit/3 Trimesters



Prerequisite: Recommendation of middle school science teacher.

Description: Biology explores the properties of living matter on a molecular, cellular and organismic level. This course teaches the processes and concepts of biology and its importance in everyday life. Biochemistry, molecular and cellular organization, genetics, evolution, environmental studies and ecology are major content items developed and explored. Studies in all areas emphasize universal scientific skillsets and mindsets, such as problem solving, observation, experimentation, evidence-based analysis, as well as the application/creation of models to represent abstract ideas.

4309 HONORS BIOLOGY
Grade 9
1.5 Credits/3 Trimesters



Prerequisite: Students must receive a recommendation from a middle school science teacher, having demonstrated excellence in previous science coursework.

Description: This course is designed for the college preparatory student who has achieved at a higher level in previous science courses. Areas of emphasis are biochemistry, molecular and cellular organization, metabolic processes, cell division, genetics, protein synthesis, evolution, environmental studies and ecology. Students will demonstrate proficiency in the use of tools, processes, and resources to carry out scientific processes and critical thinking. Construction of models, analogies, and other applications demonstrating and implementing scientific/technological systems will be a key component in the application of content.

3311 CHEMISTRY
Grades 10-11
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Algebra I and science teacher recommendation

Description: Chemistry introduces students to the structure and composition of materials as they undergo changes in their chemical make-up. The students will have a structured look at atomic theory and how it leads to chemical bonding while making connections to their everyday lives. Other areas of study will include the Periodic Table, states of matter, stoichiometry, kinetic theory, and chemical reactions. Studies in all areas emphasize universal scientific skillsets and mindsets, such as problem solving, observation, experimentation, evidence-based analysis, as well as the application/creation of models to represent abstract ideas.

3304 INTEGRATED PHYSICAL SCIENCE
Grade 10-12
1 Credit/2 Trimesters

Prerequisite: Successful completion of Algebra I, Environmental Biology and Principles of Biology

Description: This Integrated Physical Science course is primarily developed for students who have completed Environmental Biology and Principles of Biology and are ready for a physical science course. This course is designed to acquaint students with the laws and theories of chemistry and physics, to acquire skills and competencies in laboratory techniques and the methods of science, and to explore the applications of chemistry and physics. Students will think analytically through scientific inquiry and hands-on learning opportunities. Students will learn practical explanations of scientific phenomenon as it relates to their everyday lives.

3314 CONCEPT PHYSICS
Grades 11 - 12
1 Credit/2 Trimesters

Prerequisite: Successful completion of a biology course, a chemistry course and an algebra course.

Description: This course is designed for students who desire to explore the concepts of physics without advanced mathematics. This course will emphasize topics including but not limited to the nature of science, measurement, motion in one-dimension, projectile motion, forces, the laws of motion, work, energy, power, torque, simple machines, momentum, and periodic motion. Students will be asked to effectively explain physical principles and describe how they relate to the world around them. Students will also be asked to analyze data in a hands-on setting.

3313 PHYSICS
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of chemistry and mathematics through advanced algebra. Functions, Statistics, and Trigonometry should be taken concurrently with this course.

Description: This course will prepare students to exist in an increasingly technological society. To develop the students' analytical, problem solving, and laboratory skills. To integrate math and science application skills and to integrate computers and science within the context of the laboratory environment. Throughout the year, students will investigate basic physics concepts including; mechanics, wave motion, light and static electricity. Students will be expected to manage daily homework assignments, periodic practical labs and group projects.

4315 HONORS RESEARCH SCIENCE

Grade 12

1 Credit/2 Trimesters



Prerequisite: Successful completion of Biology and Chemistry and recommendation of a science teacher

Description: This independent study course is designed for the senior entering the field of science who has had above average achievement in previous science courses. This course emphasizes individual creativity, self-motivation, and achievement. Through independent experimentation, students design and implement a research plan for the resolution of a scientific problem. They will use appropriate science data correlation procedures and construct a well-formed research rationale and hypotheses. They will gather data and information through hands-on experiments and organize this data to draw valid conclusions. Extensive lab work may require before and/or after school commitment. Research topics can be drawn from a variety of disciplines including botany, zoology, physiology, medicine, bio-chemistry, psychology, and environmental sciences. Failure to complete a research project by the end of the second trimester will result in failure of the course.

3318 ETHICS IN SCIENCE

Grades 11 - 12

.5 Credit/1 Trimester



Prerequisite: Successful completion of biology and chemistry courses.

Description: This class is designed for juniors and seniors interested in examining the ethical dilemmas associated with a range of scientific advancements (ex. stem cell research, cloning) as well as the medical profession, such as doctor-patient relationships. The impact of technology (from genetic engineering to rights of privacy) will be explored within all of these fields. Classic "could/should" conflict will be studied, paying particular attention to arguments from opposite viewpoints and to what the law states. An early emphasis will be placed on understanding the nature of ethics and how it fits into the fabric of society. Students will demonstrate an understanding of current biochemical, environmental, medical, and technological issues. The topics highlighted will require comprehension of cellular biology, genetics, environmental sustainability, and health care issues. The major focus of the class will be the expression of ideas/opinion/points of view through argument, discussion and debate, both formal and informal. Technological presentations as well as a variety of other project formats will also be expected, as examinations only play a portion of the role on grading. Class participation will be an integral part of the class, a research component, and reading in the sciences will most likely be required.

4310 HONORS CHEMISTRY

Grade 10

1.5 Credits/3 Trimesters

Prerequisite: Recommendation of the science teacher, having demonstrated excellence in previous science coursework. Students should be enrolled in Honors Level Math such as Honors Algebra II, Honors FST, or Honors Pre-Calculus.

Description: Chemistry introduces students to the structure and composition of materials as they undergo changes in their chemical make-up. The students will have a structured look at atomic theory and how it leads to chemical bonding while making connections to their everyday lives. Other areas of study will include the Periodic Table, States of Matter, Stoichiometry, Kinetic Theory, and Chemical Reactions. This course is offered to students desiring to take a challenging, introductory chemistry course. It is designed as a prerequisite to Advanced Placement Chemistry. Much emphasis will be placed upon quantitative (mathematical) application of observed phenomena in chemistry. The problem-solving approach will be used in order to expand the ability of the student to perform analytical thought processing and abstract reasoning.

4311 AP BIOLOGY

Grades 11-12

1.5 Credits/3 Trimesters



Prerequisite: Chemistry 4310 or 3311 and Biology 3309 or 4309 and teacher recommendation

Description: The Advanced Placement Biology course is designed to be the equivalent of a college biology course usually taken by biology majors during their first year of college. Major content pieces include cellular organization, genetics, evolution/natural selection, plant and animal physiology and ecology. Spiraled throughout these content pieces are unifying themes of biology, which include, but are not limited to, the interaction of biological systems, the storing and transmitting of information between systems, and the use of free energy to maintain homeostasis. It aims to provide students with the conceptual framework, factual knowledge, and analytical and inquiry skills necessary to deal critically with the rapidly changing world of biology. Scientific skill sets such as

observation and analysis, model building, problem solving and critical evaluation of data will be cornerstones of the course. Students will be required to take the AP Biology exam at the end of the course.

4312 AP CHEMISTRY
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Completion of Chemistry 3311 or 4310 and Advanced Algebra with a satisfactory grade or fulfillment of the honors requirement. Students should have completed or be enrolled in Functions, Statistics, and Trigonometry concurrently with this course. It is helpful if students have taken or are enrolled concurrently in Physics 3313.

Description: Advanced Placement Chemistry is designed to be the equivalent of a college chemistry course for students majoring in engineering, pre-med, biology or related fields of study. Students attain a depth of understanding of fundamentals and reasonable competence in dealing with chemical problems. The course will also develop a background in organic chemistry helpful to students entering chemistry in college on the second level. This course is structured around the six big ideas articulated in the AP Chemistry curriculum framework provided by the College Board. The content includes, structure of matter, properties of matter with a focus on characteristics, states and forces of attraction, chemical reactions, kinetics, equilibrium and thermodynamics. A special emphasis will be placed on the seven science practices, which capture important aspects of the work that scientists engage in, with learning objectives that combine content with inquiry and reasoning skills. Students will be required to take the AP Chemistry exam.

4316 AP PHYSICS I
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Success in Honors Chemistry and Mathematics through advanced algebra or having a recommendation from their teacher. Functions, Statistics, and Trigonometry should be taken concurrently with this course.

Description: This course will prepare students to exist in an increasingly technological society. To develop the students' analytical, problem solving, and laboratory skills. To integrate math and science application skills and to integrate computers and science within the context of the laboratory environment. Throughout the year, students will investigate physics concepts including; mechanics, wave motion, light and static electricity. Students will be expected to manage daily homework assignments, periodic practical labs and group projects. Students will also be expected to make connections between content and apply their conceptual understandings to differing contexts in creative and logical ways. Students will be required to take the AP Physics I exam.

4317 AP ENVIRONMENTAL SCIENCE
Grades 11-12
1.5 Credits/3 Terms



Prerequisite: Successful completion of a biology course, chemistry course, Algebra I and II, as well as a recommendation from a science teacher. It is also recommended, though not required, that students have taken (or be taking concurrently), a physics course and United States History.

Description: The Advanced Placement Environmental Science course is designed to be the equivalent of an introductory college course in environmental science. The following six themes provide a foundation for the structure of the course: (1) Science is a process, (2) Energy conversions underline all ecological processes, (3) The Earth itself is one interconnected system, (4) Humans alter natural systems, (5) Environmental problems have a cultural and social context, and (6) Human survival depends on developing practices that will achieve sustainable systems. The exploration of these six themes will take form in each of the following key topics: earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution, and global change. Extensive homework and laboratory work are required. Technical skills are a must, as there will also be a strong digital portion of the course. In addition, students are expected to carry out extensive outside readings as well as analyze multiple video documentaries. All required associated math-based problem solving must be carried out by hand, as no calculators are allowed. Students will be required to take the AP Environmental Science exam at the end of the course.

Social Studies

Social Studies assists students in acquiring, understanding and using information about historical and contemporary affairs.

Graduation Requirements

All students must fulfill the district's graduation requirements of 4.0 credits of Social Studies (equivalent to 3-4 years) in grades 9-12. This includes the successful completion of Global Civics, World History, and US History courses.

Placement in Courses

HONORS LEVEL REQUIREMENT

Admission to Honors Level History/Social Studies courses will be based on:

1. Grades in previous history/social studies courses
 2. Recommendation of the previous year's history/social studies teacher
 3. Under special circumstances, evaluation by social studies teachers of reading and analysis completed by the student in an essay format
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3208 GLOBAL CIVICS

Grade 9

1 Credit/2 Trimesters



Prerequisite: None

Description: This course will provide students with skills and competencies that lead to the development of global civic responsibility. The course content focuses on the rights, duties, and responsibilities of citizenship, the development and purpose of government, human rights and how they are protected in the United States and globally, and the foundations, ideals and organization of the United States government. Students will develop participatory skills that enable citizens to monitor and influence civic life by working with others, expressing ideas, and managing conflict.

3210 WORLD HISTORY

Grade 10

1 Credit/2 Trimesters



Prerequisite: None.

Description: The course will take a global approach to world studies, spanning European, Asian, and African histories. The time period of study will be from the Middle Ages to the modern times. Topics include: Medieval Europe, Byzantine, Islamic, Asian and African civilizations, the Renaissance and Reformation, Exploration and Colonization, the Enlightenment and French Revolution, the growth of European States, Nationalism, European Imperialism, the World Wars, Fascism, the Russian Revolution, and current issues. Student will be expected to read and apply primary and secondary source documents, to write about historical issues from multiple perspectives, and to take part in class projects and discussions meant to develop a global view of history and its connections to modern American society.

4210 HONORS WORLD HISTORY

Grade 10

1 Credit/2 Trimesters



Prerequisite: Successful completion of Global Civics and fulfillment of the honors requirement.

Description: Honors World History takes a global approach to world studies, beginning with the Middle Ages to modern times. Emphasizing place, time, and significance, these courses will show the continuity of history and the human condition, the sweeping forces that shaped events, and the influence of each era upon succeeding times. Because this is an honors course, there is greater emphasis on essay writing, oral presentations, and the use of challenging reading materials. Students will develop the critical thinking skills necessary in understanding events which have shaped today's world and examine social, political, intellectual, and economic philosophies while gaining a greater appreciation for world diversity.

4209 AP WORLD HISTORY
Grade 10
1.5 Credits/3 Trimesters



Prerequisite: An A average in the Grade 9 Social Studies course and teacher recommendation. As this is a writing intensive, college level course, an Honors English background is highly recommended.

Description: AP World History will focus on the development of the skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. Throughout the year, students will investigate significant events, individuals, developments, and processes in historical periods from approximately 1200 C.E. to the present. In addition, students will explore themes throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. Students are expected to write, read, and comprehend above grade level. Students should be able to independently manage a variety of assignments to completion.

3211 UNITED STATES HISTORY
Grade 11
1 Credit/2 Trimesters

Prerequisite: Successful completion of World History 3210

Description: This course is a conceptual look at continuity and change in American politics, economics, geography, and culture. Starting in post-Civil War Reconstruction, students will study trends from the late 1800s through the 1990s with an emphasis on critical thinking, writing skills, and the integration of national and global current events in order to make meaningful connections between past and present.

4211 HONORS UNITED STATES HISTORY
Grade 11
1 Credit/2 Trimesters

Prerequisite: Completion of World History 4210 and fulfillment of the honors requirement. As this is a writing intensive course, Honors English highly recommended.

Description: This course provides an in-depth analysis of U.S. history from the Age of Imperialism to the present. Students will explore the major events, policy, and decisions thematically through a combination of intensive reading, lectures, Socratic discussion and problem-solving simulations. The students will learn to read historical materials analytically and critically, weighing historical evidence and interpretations and arriving at conclusions on the basis of informed judgment. Students will analyze the causes, significance, and interrelation of historical events and culture while developing skills to interpret, contextualize, relate and think critically about historical writings and mass media at an honors level.

4212 AP UNITED STATES HISTORY
Grades 11 - 12
1.5 Credit/3 Trimesters

Prerequisite: Successful completion of Honors World History and teacher recommendation. As this is a writing intensive course, Honors English is highly recommended. This is a college level course.

Description: AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society.

3213 ECONOMICS
Grade 12
.5 Credit/1 Trimester



Prerequisite: None

Description: Economics provides an opportunity for students to examine the topic from theoretical, historical, and real-world perspectives. The course introduces students to abstract ideas of supply, demand, equilibrium, and efficiency, and how these aspects

provide explanations for consumer and producer behaviors. Students will also trace the roots of the American financial system and how early traditional economies grew into modern economic systems that are globally interconnected. Finally, students will develop the skills necessary to manage their personal finances, including navigating credit, calculating taxes, and budgeting for various income levels. Students will be expected to perform such tasks as graphing, using interest rates, and writing about current economic situations, as well as collaborating on projects and discussions in class.

8211 INTRODUCTION TO PSYCHOLOGY

Grades 9 – 12

.5 Credit/1 Trimester



Prerequisite: None

Description: Introduction to Psychology provides an overview of current psychological research methods and theories. The primary areas of course study will follow the APA National Standards for High School Psychology including; psychological methods, biopsychology, cognitive psychology, developmental psychology, social psychology, and abnormal psychology. Students will study the development of psychological science from its' beginnings to present day, develop an understanding of the approaches and perspectives by which one can approach psychology, and be able to apply knowledge gained in class to real-life situations.

4350 AP PSYCHOLOGY

Grades 11-12

1 Credit/2 Trimesters



Prerequisite: Successful completion of Introduction to Psychology and teacher recommendation.

Description: The AP Psychology course is designed to be the equivalent of a college psychology course and to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students will also learn about the ethics and methods psychologists use in their science and practice. The primary areas of course study will follow the APA National Standards for High School Psychology including; psychological methods, biopsychology, cognitive psychology, developmental psychology, social psychology, and abnormal psychology. Students will engage in extensive reading and writing within the discipline. Students enrolled in this course are required to take the AP Psychology Exam.

8220 CRIMINAL AND CIVIL LAW

Grades 9-12

.5 Credit/1 Trimester



Prerequisite: None

Description: This course will provide an overview of the criminal and civil legal systems in the United States. Topics of study include legal ethics, court systems and procedures, constitutional law, criminal law, civil law, forensic psychology, Pennsylvania school law, and international law. Students will develop an understanding of both the Federal and State legal systems. The course is designed is designed to both prepare students for higher level legal studies as well as to provide students with a functional knowledge of the law as it pertains to the rights, duties, and responsibilities of citizenship.

8860 MODERN HISTORY THROUGH POP CULTURE

Grades 11-12

.5 Credit/1 Trimester

Description: This course will look at major political events/issues and social changes in the United States from the post-World War II era to the present through the vehicle of pop culture. Major topics will include The Changing Family Changing Social Mores, Race & Ethnicity in America, Changes in 'War' Movies over Time, and Political Commentary & Satire. We will look at how various events and social issues are dealt with in TV and film and how changes in "presentation" of issues change over the decades. The changing family/gender roles will be studied through iconic shows of the 1950s like *I Love Lucy*, *The Donna Reed Show*, and *Leave it to Beaver* in the 50s, to current shows including *Modern Family*. Issues regarding changing attitudes about race/ethnicity would be covered in movies like *Guess Who's Coming to Dinner*, *All in the Family*, *The Jeffersons*, and *The Cosby Show*. Additionally, dealing with issues of war might include changing portrayals of the Vietnam War via sections of movies from John Wayne's *The Green Berets* and *The Deer Hunter*, TV shows like *MASH*, *Homefront*, and *China Beach*, through more recent films about the Iraq War. Finally, we will study political commentary and political satire through serious movies like *Good Night & Good Luck* as well as selections of humorous shows like *Laugh-In*, *SNL*, *The Colbert Report*, and *The Daily Show*.

4214 AP UNITED STATES GOVERNMENT AND POLITICS
Grades 12
1 Credit/2 Trimesters



Prerequisite: Successful complete of tenth or eleventh grade AP or honors level history.

Description: 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.

8127 WOMEN'S HISTORY
Grades 11-12
.5 Credit/1 Trimester

Prerequisite: Completion or concurrent enrollment in AP US History or US History.

Description: Women's History is a 12-week elective that will focus on the history of women in the United States from the colonial era through the present. The course will cover the expansion of women's rights as a result of the suffrage movement and the modern women's movement as well as the experiences of everyday women throughout US history. Women's History will follow a seminar model and will be largely reading and discussion based. Readings will be pulled from a variety of historical texts, secondary and primary sources, as well as current journals, essays, and newspapers. Additionally, the course will include analysis of music, poetry, short stories, TV and film.

World Language

The primary goal of World Language is to develop linguistic proficiency and cultural sensitivity in order to prepare students to participate in our global society. The four essential skills of listening, speaking, reading, and writing are balanced within each level, and students increasingly develop their communicative skills as they deepen their appreciation of other cultures.

It is recommended that students take at least two years of the language they select. Those who plan to study languages, literature, the humanities, or fine arts in college should make every effort to complete four years of language study in high school. Many competitive colleges and universities require a minimum of three years of world language study for admittance. Students should familiarize themselves with the requirements of schools that they may be considering.

Courses are offered only if there is sufficient enrollment.

3525 FRENCH I **Grades 9 – 12** **1.5 Credits/3 Terms**



Prerequisite: None.

Description: In French I, students will begin to acquire proficiency in listening, speaking, reading, and writing in the target language, with major emphasis being placed on oral communication. Students will progressively develop proficiency skills through numerous and varied oral and written exercises set in meaningful and personalized contexts. Students will gain an increased knowledge and appreciation of the Francophone world abroad and in the United States. This course will help prepare students to participate in a multi-cultural and diverse global society.

Students are expected to perform at the novice mid to novice high (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

3528 FRENCH II **Grades 9 - 12** **1.5 Credits/3 Trimesters**



Prerequisite: Successful completion of middle school French or successful demonstration of proficiency.

Description: In French II, students continue to develop proficiency skills as they increase their ease and confidence in communicating in French on a daily basis. Students' knowledge and usage of structural foundations are expanded and implemented in all four areas of proficiency. Further cultural inquiries assist students to comprehend the role of French-speaking countries in various aspects of civilization, both contemporary and throughout the centuries. It is expected that students will use French in class to ask questions and communicate needs.

Students are expected to perform at the novice high to intermediate mid (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

3529 FRENCH III **Grades 9-12** **1.5 Credits/3 Trimesters**



Prerequisite: Successful completion of French II as well as teacher recommendation.

Description: In French III, students continue to build on a solid foundation of grammar and vocabulary in order to enable students to become more proficient in French. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Through an interweaving of language and culture, French III will broaden students' communication skills while deepening their appreciation of other cultures. This course will help students to be linguistically and culturally prepared to participate in our global society as well as in comprehending and negotiating meaning in French. The class will be taught mostly in French. It is expected that students will use French in class to ask questions and communicate needs.

Students are expected to perform at the intermediate low-mid (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

4520 HONORS FRENCH IV
Grades 11 or Proven Proficiency
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of French III as well as teacher recommendation

Description: In Honors French 4, students will review and continue to build on vocabulary and structures from previous years and French-learning experiences. Students will explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening. The language is taught within the context of six overarching themes: families and communities, personal and public identities, beauty and aesthetics, contemporary life, global challenges, and science and technology. The students will refine their language skills and strive to increase their language proficiency. This class is conducted almost exclusively in French. The class will prepare students with a strong foundation for AP French, should they decide to continue their language study.

Students are expected to perform at the intermediate mid- high (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

4314 AP FRENCH
Grade 12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Honors French IV as well as teacher recommendation.

Description: This is a college level course that explores the French cultures and language. This course is designed as an intensive preparation for students that continue in French. The course allows students to further increase their proficiency level in the four language skills of speaking, reading, writing, and listening. They will explore the language within the context of six overarching themes: families and communities, personal and public identities, beauty and aesthetics, contemporary life, global challenges, and science and technology. The students will refine their language skills and strive to increase their language proficiency. This course will also further develop the language skills that students need to take the AP French language test. This course is conducted almost exclusively in French.

Students are expected to perform at the intermediate high-advanced mid (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

3543 SPANISH I
Grades 9-12
1.5 Credits/3 Trimesters



Prerequisite: None

Description: Spanish I presents basic language structures and promotes cultural awareness. Communication is the focus of the course (understanding and being understood by others). Students are expected to communicate within three main modes of communication: interpersonal, interpretive, and presentational. Tasks are varied to provide a balanced approach to the core language skills of reading, writing, speaking, and listening. Attention to vocabulary usage, language control, communication strategies, and cultural awareness prepares the student for basic exchanges in Spanish. The course is taught in English and Spanish based on the teacher's discretion.

Students are expected to perform at the novice mid to novice high (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

3544 SPANISH II
Grades 10-12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Spanish I AND teacher recommendation

Description: In Spanish II, students continue to build on a solid foundation in order to enable them to become more proficient in Spanish. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Much attention is also given to developing the four skill areas of speaking, reading, writing, and listening. Through an interweaving of language and culture, Spanish II will broaden students' communication skills while deepening their appreciation of other cultures. This course will help prepare students to be linguistically and culturally prepared to participate in our global society as well as in comprehending and negotiating meaning in Spanish. This class will be taught primarily in Spanish, with grammar explanations being possible exceptions. It is expected that the students will use Spanish in class to ask questions and communicate needs.

Students are expected to perform at the novice high to intermediate mid (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Interpret a variety of authentic sources such as audio, visual, and audiovisual;
- Interpret a variety of authentic sources such as written and print;
- Plan, produce and present spoken presentational communications;
- Plan and produce written presentational communications.

3541 SPANISH III
Grades 10 - 12
1.5 Credit/3 Trimesters



Prerequisite: Successful completion of Spanish II AND teacher recommendation

Description: Spanish III continues to build on language structures and cultural awareness. Communication is the focus of the course (understanding and being understood by others). Students will continue to improve within three central modes of communication: interpersonal, interpretive, and presentational. Tasks are varied to allow for improvement in the fundamental language skills of reading, writing, speaking, and listening. Language instruction takes place within the context of thematic units. Attention to vocabulary usage, language control, communication strategies, and cultural awareness prepares the student for success in more advanced Spanish scenarios. The course is taught almost exclusively in Spanish.

Students are expected to perform at the intermediate low-mid (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Synthesize information from a variety of authentic audio, visual, and audiovisual resources;
- Synthesize information from a variety of authentic written and print resources;
- Plan, produce, and present spoken presentational communications; and
- Plan and produce written presentational communications.

4503 HONORS SPANISH IV
Grade 11-12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Spanish III AND teacher recommendation

Description: Honors Spanish IV honors continues to build on the language base already established. Communication is the core focus of this course (understanding and being understood by others). This is accomplished by engaging the student in various modes of communication: interpersonal, interpretive, and presentational. Tasks are varied to enhance the fundamental language skills of reading, writing, speaking, and listening. The language is taught within the context of six overarching themes: families and communities, personal and public identities, beauty and aesthetics, contemporary life, global challenges, and science and technology. Attention is directed towards vocabulary usage, language control, communication strategies, and cultural awareness. Content encompasses an exploration of culture in both contemporary and historical contexts. The course is taught almost exclusively in Spanish.

Students are expected to perform at the intermediate mid- high (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
Engage in written interpersonal communication;
- Synthesize information from a variety of authentic audio, visual, and audiovisual resources;
- Synthesize information from a variety of authentic written and print resources;
- Plan, produce, and present spoken presentational communications; and
- Plan and produce written presentational communications.

4512 AP SPANISH
Grade 12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Honors Spanish IV AND teacher recommendation

Description: The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. The six thematic units from previous levels are continually built upon and explored in more depth. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

Students are expected to perform at the intermediate high-advanced mid (ACTFL) level in the following scenarios:

- Engage in spoken interpersonal communication;
- Engage in written interpersonal communication;
- Synthesize information from a variety of authentic audio, visual, and audiovisual resources;
- Synthesize information from a variety of authentic written and print resources;
- Plan, produce, and present spoken presentational communications; and
- Plan and produce written presentational communications.

Self-Directed Experiential Learning

During Grade 10, students will engage in a self-directed learning experience that will earn 1.0 credits and fulfill a requirement for graduation. Designed to foster talent development in areas of students' personal strengths and interests, these experiences will focus on skills such as initiative, perseverance, time management, communication, responsibility, and problem-solving. Students will participate in a series of seminars to help them to conceive an idea, plan and execute a goal and reflect on what they've learned as they complete the task, project or experience they've designed.

7928 SELF-DIRECTED EXPERIENTIAL LEARNING (SDL)

Grade 10

1.0 Credit/2 Trimesters



Prerequisite: Completion of interest and learning style inventories and assessments in grade 9

In keeping with our goal to prepare students for life after high school, students will complete an SDL option in grade 10. This required course is designed by the student after analysis of the individualized data produced on various learning style and interest inventories completed in grade 9. The SDL consists of a series of seminars that guide the process, however the designed experiences are highly individualized and require students to develop and practice skills such as time management, initiative, communication, problem-solving, perseverance, and independence as they work to achieve their goal. Students may create an experience that is uniquely theirs, or may design an initiative in conjunction with an established program or activity approved by the principal.

Internships/Apprenticeships/ Work-Based Learning Experience

Quaker Valley High School students can earn credit for various internship, apprenticeship, and work-related experiences. Individualized opportunities beyond this list can be created, based on student and community requests. Contact Mrs. Keller for further information (kellera@qvsd.org).

PHD PEER HELP DESK INTERNSHIP

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisite: Acceptance based on application and interview—a limited number of students are accepted each trimester. Interested students should contact the guidance office and/or PHD- Peer Help Desk for an application.

Description: The PHD- Peer Help Desk will focus on fostering a collaborative work environment creating a community of learners who support students and teachers through problem solving, communication, information technology, technology repair, customer service and peer tutoring. Students choose one of two **areas of emphasis** and through innovation and initiative implement an idea / plan to assist peers and teachers. In order to support students, staff, and teachers, PHD students must be mature, responsible, and trustworthy and show a high level of integrity and initiative. Internships may take place in school during regularly scheduled class periods or after regular school hours (independently) depending upon need, position, and scheduling.

Areas of Emphasis: **7920 PhD Manager/Tutor Intern** **7921 PhD Technology Intern**

7906 TEACHER ASSISTANT

Grade 12

.5 credit/Trimester

Description: Students are eligible to complete a Teaching Assistant (TA) experience during their senior year of high school. Seniors completing this elective will gain experience in classroom preparation, lesson planning, instruction, classroom management, and assessment of student learning by working under the supervision of a high school teacher. TAs may be placed within a freshman, sophomore, or junior classroom (no senior classes) and will receive .5 elective credit based on a Pass/Fail grade for each trimester completed. Seniors interested in this experience should make prior arrangements with a teacher and review the specific program requirements and expectations with that faculty member.

7907 WORK-BASED LEARNING EXPERIENCE

Grades 11 – 12

.5 credit/Trimester

Description: Working during high school provides a unique learning experience for students. Therefore, students are eligible to earn credits for work experience during their junior and senior year. Students must work a minimum of 5 hours per week in order to qualify for this opportunity. Students must verify their work hours and participate in a reflection interview at the end of each term.

7911 ENVIRONMENTAL SCIENCE INTERNSHIP

Grades 10 – 12

.5 credit for the year

Description: The Environmental Science Internship (aka QV Creekers) is an after-school hands-on experience in collaboration with environmental educators from Fern Hollow Nature Center and Creek Connections of Allegheny College. Its purpose is to monitor the health of the Little Sewickley Creek Watershed throughout the year. Participants will learn and work with environmental professionals in the fields of biology, botany, geology, herpetology, ichthyology and environmental science. Interns also create and design a group research project. QV Creeker meetings are generally held twice monthly after school during the school year. Space is limited and an application must be submitted.

7917 WORLD VISION INTERNSHIP**Grade 12****.5 Credit/Trimester**

Description: Space is limited to one intern per trimester and an application and interview are required. World Vision is an international humanitarian organization dedicated to working with communities worldwide, tackling the causes of poverty and injustice. Interns work with World Vision at their Global Distribution Center in Sewickley with corporate development directors to procure products for distribution, help with public relations, and coordinate volunteer groups. Students may schedule time during or after the school day, completing a minimum of 5 hours per week.

7922 ACE INTERNSHIP (Architecture, Construction Management and Engineering)**Grade 9-12****.5 credit for the year**

Description: ACE is a national organization with over 100 affiliates throughout the US. This is an after-school, hands-on experience led by professionals. Participants are grouped with other area high school students while learning about all aspects of construction including: civil, structural, geotechnical, mechanical, and environmental engineering; architectural and interior design; as well as the contributions of the electrical, stone, carpentry, and plumbing trades. A culminating activity includes group presentations of the year's work. Meetings are generally held twice monthly after school during the school year.

7924 QV COFFEE SHOP INTERNSHIP**Grades 9-12****.5 Credit/Trimester**

Description: Students have the opportunity to work as student managers in QVHS's coffee and breakfast bar. Students will develop the following skills: Leadership, Independent Thinking, Problem Solving, Communication, and Organization. Food Service Interns will: set up breakfast options, prepare coffee and tea, operate the Point of Sale System, manage student helpers from the Life Skills Program, complete daily production and sales records, conduct daily inventory of all products, market the program (conduct student surveys), communicate with HS Cafe Kitchen Lead for ordering of products, follow food safety and sanitation during operation, follow the federal and state rules and regulations of the National School Breakfast Program as well as the Allegheny County Health Department for food safety.

7925 CARNEGIE MELLON'S ENTERTAINMENT TECHNOLOGY CENTER APPRENTICESHIP**Grades 9-12****.5 Credit for the year**

Description: Carnegie Mellon's Entertainment Technology Center is the premiere professional graduate program for interactive entertainment founded as a joint venture between Carnegie Mellon University's School of Computer Science and the College of Fine Arts. Creative endeavors at the ETC focus on transformational games, innovation by design, and interactive storytelling. QV students have the opportunity to work individually or in teams to create interactive media that's entertaining, engaging, and purposeful. Students meet bi-monthly with the ETC's Education Outreach Coordinator, attend select workshops run by ETC alum and graduate students, and present final projects at the end of the year.

QVO-Quaker Valley Online Courses

QVO courses may be scheduled as one of the six periods of the day or as an additional credited class beyond the school day. Online instructors provide content, assignments, feedback, and tests that are monitored by Quaker Valley teachers. Students are required to stay in contact with their online instructor and should notify the QV teacher if they are experiencing difficulty with the online instructor. Students join virtual classmates from all over the country in discussions, peer editing, and other collaborative activities via the laptop computers. All students enrolled in AP online courses **are required** to take the associated Advanced Placement Examination for the enrolled course. Students will be issued a grade based on performance throughout the course that will be added to the official transcript along with credit. Students taking AP courses who earn a grade of C+ or higher will receive an added value of .06 into the GPA. Enrollment slots are limited. QVO courses run on a semester schedule rather than the high school trimester schedule.

5105hv AP ENGLISH LANGUAGE AND COMPOSITION QVO

Grades 11 - 12

1.5 Credits/2 Semesters (Full Year)

Prerequisite: Grade of A in most recent Honors English course

Standards: The College Board topic outline for AP English Language and Composition

Description: In AP English Language and Composition, students learn to understand and analyze styles of writing by reading work from a variety of authors. They'll explore the richness of language, including syntax, imitation, word choice and tone. They'll also learn about their own composition style and process, starting with exploration, planning, and writing, and continuing through editing, peer review, rewriting, polishing, and applying what they learn to a breadth of academic, personal and professional contexts. The equivalent of an introductory college-level survey class, this course prepares students for the AP Exam and for further study in communications, creative writing, journalism, literature and composition.

5802hv AP COMPUTER SCIENCE A QVO

Grades 11 – 12

1.5 Credits/2 Semesters (Full Year)



Prerequisites: None.

Description: The AP Computer Science A course is equivalent to the first semester of a college level computer science course. The course involves developing the skills to write programs or part of programs to correctly solve specific problems in Java. AP Computer Science also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition, an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course.

5402hv AP MACROECONOMICS QVO

Grades 11-12

.75 Credit/1 Semester (Half of Year)



Prerequisite: Successful completion of Honors Advanced Algebra; AP Microeconomics

Standards: The College Board topic outline for AP Macroeconomics

Description: AP Macroeconomics students learn why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline. They'll also examine how individuals, institutions, and influences affect people, and how those factors can impact everyone's life through employment rates, government spending, inflation, taxes, and production. The equivalent of a 100 level college-level class, this course prepares students for the AP Exam and for further study in business, political science and history.

5401hv AP MICROECONOMICS QVO

Grades 11 - 12

.75 Credit/1 Semester (Half of Year)

Prerequisite: Two years of Social Studies

Standards: The College Board topic outline for AP Microeconomics

Description: AP Microeconomics studies the behavior of individuals and businesses as they exchange goods and services in the marketplace. Students will learn why the same product costs different amounts at different stores, in different cities, and at different times. They'll also learn to spot patterns in economic behavior and how to use those patterns to explain buyer and seller behavior under different economic conditions. Microeconomics studies the economic way of thinking, understanding the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in promoting a healthy economy. The equivalent of an introductory college-level course, AP Microeconomics prepares students for the AP Exam and for further study in business, history, and political science.

5711hv MARKETING QVO

Grades 11-12

.75 credits/Semester

Description: In this course, the student will explore factors influencing how marketing decisions are made, including the impact of marketing decisions on an organization and its customers. Throughout the course, the student will gain a working knowledge of practical marketing and business vocabulary. The student will also evaluate how the actions of competitors influence marketing decisions in the global marketplace.

5710hv ACCOUNTING QVO

Grades 11-12

.75 credits/Semester

Description: This course introduces students to accounting concepts and principles, financial statements, internal control design, and accounting for partnerships. By the end of the course, you will be able to: Define terms related to business accounting; Apply accounting concepts and principles; Prepare financial statements; Analyze financial statements for decision making; Evaluate internal controls; Account for partnership transactions; Differentiate international financial reporting standards from generally accepted accounting principles.

5325hv ANATOMY AND PHYSIOLOGY QVO

Grades 11-12

.75 credits/Semester

Description: In this course students will learn about anatomical structures and physiology of the human body. Body systems are discussed in terms of how each participates in homeostasis of the body. Students learn about selected major pathologies, including causes, symptoms, diagnostic procedures, and treatments, as well as common changes that occur through the life span. By the end of the course the student will be able to: Describe the organization of the human body; Explain the contribution that each body system makes to homeostasis of the body; Identify the major anatomical structures and the purposes of each body system; Explain the basic physiological processes in each of the body systems; Describe selected human diseases in terms of definition, cause, signs and symptoms and diagnostic procedures; Describe common issues or changes that occur in each body system throughout the lifespan.



Parkway West Career and Technology Center Career Majors at Oakdale Campus

The programs below are available to Quaker Valley High School students at the Parkway West Career and Technology Center (PWCTC) in Oakdale, PA. Students attend Quaker Valley High School on a half-day basis for academic classes, health, and physical education; the other half of the day is spent in the program at Parkway West.

Several programs offer a tech prep option in which the four year Parkway students are assured a **three-year program**. The fourth year can consist of an internship in the area of the student's technical program. Students who successfully complete Parkway West CTC programs may be eligible to earn articulated college credit from participating institutions.

9911 AUTO BODY REPAIR I 9912 AUTO BODY REPAIR II 9913 AUTO BODY REPAIR III 99915 AUTO BODY REPAIR IV Grades 9 - 12 4.5 Credits/Year

Description: The Auto Body Repair program is certified by the National Automotive Technology Education Foundation (NATEF) and provides instruction in the most current techniques for repair and replacement of damaged automobile parts. Students learn to repair collision damage and to replace quarter panels, door skins, and fenders. The curriculum also includes painting, MIG welding, collision repair, frame straightening, and damage analysis. Students gain experience in mixing and tinting paint, custom painting, computerized estimating, and auto detailing. Practical experience is also provided through a full-service auto body repair shop. Students have the opportunity to earn PPG Blue Level Paint and I-Car MIG Welding certifications. They are also eligible to earn I-CAR Points.

9914 AUTOMOTIVE TECHNOLOGY I 9915 AUTOMOTIVE TECHNOLOGY II 9916 AUTOMOTIVE TECHNOLOGY III 99918 AUTOMOTIVE TECHNOLOGY IV Grades 9 - 12 4.5 Credits/Year

Description: Automotive Technology is certified by the National Automotive Technology Education Foundation (NATEF) and affiliated with all of the major automotive manufacturers through Automotive Youth Educational Systems (AYES). Students prepare to take the Pennsylvania State Inspection License examination. Students learn basic vehicle maintenance, repair, and replacement of drive trains, brake systems, chassis components, and fuel and electrical systems. Special emphasis is placed on troubleshooting and engine performance via the use of state-of-the-art electronic diagnostic equipment. Practical experience is also provided in the auto repair shop. Under the Automotive Youth Educational Systems (AYES) apprenticeship program, students may qualify to become an apprentice working under mentor technicians. Students can earn certifications from AYES, the National Institute for Automotive Service Excellence (ASE), and the Coordinating Committee for Automotive Repair (CCAR).

9920 CONSTRUCTION TECHNOLOGY I Grades 9 - 12 4.5 Credits/Year

Description: First-year students spend nine weeks in each of the four areas of concentration offered in the Construction Technology cluster: **Building Construction Technology, Electrical Systems Technology, Welding Technology** and **HVAC/R**. Upon successful completion of the one-year rotation, students will choose a concentration for the remainder of their enrollment at PWCTC.

Building Construction Technology: Students in this program will apply technical knowledge and skills to layout, fabricate, erect, install and repair structures and fixtures using hand and power tools, scaffolding and specialty tools used in the construction trade. This program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques. Students are given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card.

Electrical Systems Technology: Students learn the integral components of the electrical industry for entry level employment in residential, commercial and/or light industrial locations. The basis of instruction is in the layout, assembly, installation, wiring, maintenance and trouble-shooting of electrical systems. Understanding programmable logistical controls (PLCs) and how transformers operate are also covered.

Welding Technology: This program covers several types of welding processes by which metal may be bent, cut or welded together, including oxy-fuel, shielded metal arc, gas metal arc, gas tungsten arc, flux core welding, carbon arc, plasma cutting and oxy-fuel brazing. Students will learn the importance of industry safety, measuring instruments, handtools, grinders, metallurgy, blueprint reading, electrical principles, layout/design and fabrication. They will also learn how to prepare materials list for cost estimates. Students have the opportunity to earn several American Welding Society (AWS) certifications.

HVAC/R: The Heating, Ventilation, Air-Conditioning and Refrigeration program has newly renovated state-of-the-industry equipment and provides instruction in basic and advanced electrical theory, troubleshooting and repair of residential and commercial heating, air-conditioning and refrigeration systems. Students are given the opportunity to earn a 10-hour OSHA Construction Card.

9929 COSMETOLOGY I
9930 COSMETOLOGY II
9931 COSMETOLOGY III
99933 COSMETOLOGY IV
Grades 9 - 12
4.5 Credits/Year

Description: Students who successfully complete 1250 hours of instruction in the Cosmetology program are eligible to take the Pennsylvania State Board of Cosmetology Examination and become certified as licensed cosmetologists. Cosmetology prepares students to perform technical services including all aspects of hair, skin/nail beautification, and personal maintenance. These skills are supported and reinforced with theoretical background including sanitation, chemistry, anatomy and physiology, as well as structure, function, and disorders of the hair, skin, nails, and scalp.

9902 NAIL TECHNICIAN LICENSE
Grade 12
4.5 Credits-one year

Description: This license requires 200 hours of instruction and can be completed within one year. An individual holding a nail technician license is qualified to perform nail technology services only.

9968 CULINARY ARTS I
9969 CULINARY ARTS II
9970 CULINARY ARTS III
99972 CULINARY ARTS IV
Grades 9 - 12
4.5 Credits/Year

Description: The Culinary Arts program provides practical instruction in the preparation of banquet, buffet, and a la carte styles of food preparation. Practical experience is provided through the operation and management of an in-house, full-service restaurant and beyond the restaurant environment to provide goods and services for Parkway's food store, where pastries and select meats are sold. Students learn to design cakes, sculpt ice, and prepare many different types of cuisine. Senior students who have completed at least two years of Culinary Arts will have the opportunity to earn both the National Restaurant Associations ServSafe certification and the American Culinary Federation certification.

99972 DIESEL TECHNOLOGY I
xxxxx DIESEL TECHNOLOGY II
xxxxx DIESEL TECHNOLOGY III
xxxxx DIESEL TECHNOLOGY IV
Grades 9-12
4.5 Credits/Year

Description: Diesel Technology is part of every aspect of today's transportation, construction, and manufacturing industries. In Diesel Technology, students will learn about the operation, maintenance, and overhaul of diesel powered equipment. Diesel engines are found in military vehicles, trucks, trains, buses, construction and agricultural equipment. As the diesel equipment industry expands, the demand for mechanics and technicians to repair and maintain diesel equipment will continue to grow.

9923 DIGITAL MULTIMEDIA I
9924 DIGITAL MULTIMEDIA II
9925 DIGITAL MULTIMEDIA III
99927 DIGITAL MULTIMEDIA IV
Grades 9 - 12
4.5 Credits/Year



Description: The Digital Multimedia Technology program provides instruction in basic graphic design using computers and design software such as Adobe Illustrator, Acrobat, Photoshop, InDesign, and Dreamweaver. Students learn entry-level skills for desktop publishing, web design, digital photography, and graphic animation utilizing Flash. Several software applications are used to design,

edit, and publish documents, images, and multimedia presentations in print and electronic form. Students can earn the Adobe Certified Associate certification in Visual Communication and the Adobe Certified Associate in Web Communication certification via Certiport.

9947 HEALTH ASSISTANT I
9948 HEALTH ASSISTANT II
9949 HEALTH ASSISTANT III
99951 HEALTH ASSISTANT IV
Grades 9 – 12
4.5 Credits/Year

Description: The Health Assistant program is a dynamic, well-rounded view of several health occupations for students to explore. Students in this program have the opportunity to participate in a wide-range of real-world clinical and job shadowing experiences at many different local healthcare providers such as hospitals and other medically related facilities. Clinical experiences may include: child care, long-term care, emergency nursing, recovery room nursing, radiology, medical records, operating room observation, pharmacy, physical/occupational therapy, and/or lab technician.

99907 PHARMACY TECHNICIAN CERTIFICATION (CPhT)
Grade 12
4.5 Credits—one year

Description: After successful completion of this one-year, 12th grade course, students will assist the pharmacist as a Pharmacy Technician in a variety of tasks. Module and lab work includes: controlled substances, laws and regulations, drug classifications, frequently prescribed medications, prescription information, preparing/dispensing prescriptions, calculations, sterile products, unit doses and repackaging.

99909 PHLEBOTOMY TECHNICIAN CERTIFICATION (CPT)
Grade 12
4.5 Credits-one year

Description: This is a one semester certification course. Module and lab work includes: anatomy and physiology, infection control, safety and compliance, patient preparation, collection techniques and processing collected samples. Students must demonstrate a minimum of 30 successful venipuncture and 10 successful capillary punctures.

9980 INFORMATION TECHNOLOGY ESSENTIALS I
9981 INFORMATION TECHNOLOGY ESSENTIALS II
9982 INFORMATION TECHNOLOGY ESSENTIALS III
99984 INFORMATION TECHNOLOGY ESSENTIALS IV
Grades 9 – 12
4.5 Credits/Year



Description: The Information Technology program prepares students who are interested in networking and computer diagnostics. It begins with Cisco IT Essentials, PC hardware and software, and network operating systems. Students initially prepare for CompTIA A+ and CompTIA Server+ certifications and then, through the Cisco CCNA Discovery course, students learn networking concepts based on typical networks that one might encounter in a home or small office, or in larger, more complex enterprise models. Finally, students can prepare for the Cisco CCENT and Cisco CCNA certifications.

9977 PUBLIC SAFETY TECHNOLOGY I
9978 PUBLIC SAFETY TECHNOLOGY II
9979 PUBLIC SAFETY TECHNOLOGY III
9983 PUBLIC SAFETY TECHNOLOGY IV
Grades 9 – 12
4.5 Credits/Year

Description: The Public Safety Technology program focuses on careers relating to emergency medical services, firefighting, law enforcement, and emergency management services. In order to successfully complete the program, students must meet minimum proficiency levels in all public safety areas. Instruction is provided in disaster situations/management, hazardous materials handling, pre-hospital medical care, map reading, firefighting, the judicial system, and emergency dispatching.

9987 VETERINARY TECHNOLOGY I
9988 VETERINARY TECHNOLOGY II
9989 VETERINARY TECHNOLOGY III
9991 VETERINARY TECHNOLOGY IV
Grades 9 – 12
4.5 Credits/Year

Description: Veterinary Technology or “Vet Tech” students will learn to keep medical records, schedule, offer client education, practice laboratory procedures, assist with nursing duties, prepare for surgeries, and assist during a routine exam. Students will also gain a solid educational base on which to build a post-secondary degree.

99911 SPORTS MEDICINE AND REHABILITATION TECHNOLOGY I
99912 SPORTS MEDICINE AND REHABILITATION TECHNOLOGY II
99913 SPORTS MEDICINE AND REHABILITATION TECHNOLOGY III
99916 SPORTS MEDICINE AND REHABILITATION TECHNOLOGY IV
Grades 9-12
4.5 Credits/Year



Description: The Sports Medicine and Rehabilitation Therapy Technology (SMARTT) Program prepares students to work in the field of physical therapy, occupational therapy and sports medicine. Students will develop skills in prevention, diagnosis, differential diagnosis, assessment, prognosis and the rehabilitation of injuries and other health conditions. Students will learn the principles of developing a plan of care including: evaluation, interventions (exercise, manual therapy, modalities and neuro re-education), assessment, goal setting and discharge. Students will also learn how to develop a proper diet for healthy individuals and tailor it for special populations through a comprehensive understanding of nutrition. Upon successful completion, students should be able to assist in the development and implementation of a plan of care for healthy and special populations. Careers available directly out of the program could include: Personal Trainer, Coach, Physical Therapy Aid. This program also provides a solid educational base on which to build a post-secondary degree or advanced certification. Careers available with additional post-secondary schooling include: Personal Trainer, Athletic Trainer, Physical Therapist, Physical Therapist Assistant, Occupational Therapist, Certified Occupational Therapist Assistant, Strength and Conditioning Coach, Medical and Exercise Physiology researcher, Sports Psychologist, Dietitian and Exercise Physiologist.

Course and Credit Planning Guide

The Course and Credit Planning Guide is a sample of the credit sheet the guidance office uses and maintains for graduation purposes. The guide should be used by a student to adequately plan their four years at Quaker Valley High School. Total credits for each course are noted with course descriptions in the Program of Studies.

	Minimum Required Credits	Grade				Totals
		9	10	11	12	
English and Communication Skills	5.0					
Social Studies	4.0					
Science & Technology	4.5					
Mathematics	4.5					
Health I (9th or 10th grade) Health II (11th or 12 th grade)	1.0					
Self-Directed Experiential Learning (10th or 11th grade)	1.0					
Physical Education	1.0					
<i>Elective Art</i>	10.0					
<i>Elective Computer Science</i>						
<i>Elective English</i>						
<i>Elective Family and Consumer Sciences</i>						
<i>Elective World Language</i>						
<i>Elective Mathematics</i>						
<i>Elective Music</i>						
<i>Elective Social Studies</i>						
<i>Elective Engineering Technology</i>						
<i>Elective Career Tech. Center</i>						
<i>Internships, Apprenticeships, Work Experience</i>						
Total		31.0				

Updated 1/2019