

QUAKER VALLEY HIGH SCHOOL PROGRAM OF STUDIES 2014-2015

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.

LETTER FROM THE PRINCIPAL	
ADMINISTRATION	
MISSION OF THE SCHOOL DISTRICT	
INTRODUCTION	
HONORS PERSONAL PROJECT	vi
COURSE LEVELS	vi
HONORS COURSES	vi
ADVANCED PLACEMENT	vi
COLLEGE IN HIGH SCHOOL COURSES	vi
GLOBAL SCOLARS CREDENTIAL	vi-viii
SPECIAL EDUCATION	ix
ARENA SCHEDULING	ix
CUSTOMIZED CURRICULAR ALTERNATIVES	ix
PROCEDURES REGARDING SECONDARY AND	
POST-SECONDARY COURSES TAKEN AT OTHER INSTITUTIONS	X
DEMONSTRATING PROFICIENCY	х
DUAL ENROLLMENT	х
QV eLEARNING/QVO	X
COURSE TITLES	
ART	
ENGLISH AND COMMUNICATION SKILLS	
FAMILY AND CONSUMER SCIENCES	
INSTRUCTIONAL TECHNOLOGY	
MATHEMATICS	23
MUSIC	
HONORS PERSONAL PROJECT	
PHYSICAL EDUCATION/WELLNESS	
PRE-ENGINEERING AND TECHNOLOGY	
SCIENCE	
SOCIAL STUDIES	
WORLD LANGUAGE	49
VOCATIONAL-TECHNICAL PROGRAMS	
COURSE PLANNING GUIDE	

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 2014-2015 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,

Mr. Andrew Surloff Principal

Quaker Valley School District

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Mission of the School District

The mission of the Quaker Valley School District is to excel at educating students to become knowledgeable, self-directed, lifelong learners, and ethical, responsible citizens.

Belief Statements

We believe that . . .

- 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.
- Learning is a lifelong process.
- Young people are valued, contributing members of society.
- Communities that invest in youth prosper.
- Respect for self and others promotes a sense of community and an environment conducive to learning.
- Knowledge, competence, and interpersonal skills are critical for success.
- Quality is achievable in all aspects of the educational process.
- Education is a partnership among home, school, and community.

Honors Personal Project

Students are required by Quaker Valley School Board Policy and the Pennsylvania Department of Education to complete a Personal Project before graduation. The project is to be completed in 10th grade during Trimesters 1 and 2 (see course descriptions). This one credit course is graded utilizing the Quaker Valley High School grading scale. Students must receive a passing grade in order to meet the Quaker Valley School Board Policy graduation requirements. The successful completion of the Personal Project will fulfill the graduation requirement. Students who receiver a C+ or higher will get credit for the honors personal project.

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 <u>are</u> 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 \$175. 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.

Global Scholars Credential

While all Quaker Valley High School students will matriculate through a relevant, globally focused curriculum that emphasizes 21st Century skill development, students who wish to independently explore global topics in more depth may opt to earn a Global Scholars Credential. To earn the credential, students will be required to do the following:

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*).

Students must complete the required coursework:

- 4 Years/Courses of English
- 4 Years/Courses of Social Studies

3 Years/Courses of Math (4 Courses are highly recommended)

3 Years/Courses of Science (4 Courses are highly recommended)

- 5 Credits of the coursework listed above must be comprised of the specifically identified Global Scholars Courses and students must earn a B- or better in each course.
- 4.5 Credits of World Language (detailed above)
- 4 Courses of Global Scholars Electives (Of the four courses, students must take at least one elective course in the Science and Technology category and at least one course in the Arts and Expression category)
- 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.

Identified Global Scholars Courses Core Courses:

21st Century English

CHS Argument, Communication, Rhetoric

AP English

9th and 10th grade Language Arts

Global Civics

World History (all levels)

Economics/Entrepreneurship

International Relations

Politics

AP European History

AP Macroeconomics

Biology (all levels)

Environmental Biology

Global Electives

Art and Expression Electives 8813 Ceramics I (.5) 8818 Ceramics II (.5) 8817 Sculpture (.5) 8842 Metals and Jewelry (.5) 8842 Metals and Jewelry (.5) 8841 Intermediate Drawing + Painting (.5) 8846 Advanced Drawing + Painting (.5) 8837 Introduction to Digital Imaging (.5) 8838 Introduction 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)

Music

8799 Honors Band (1.5) 8798 Concert Band (1.5) 8802 String Orchestra (1.5) 8803 Concert Choir (1.5) 8822 Music Theory (1.0) 8807 History of Popular Music (.5) 8808 Keyboard Lab (.5) Band/Chorus (3.0) 8795 Stage Lighting and Sound (.5) 4820 AP Music Theory (1.5)

Language Arts 8101 Introduction to Journalism (.5) 8101 Mythology (.5)

Technology/Science electives 3703 Introduction to Web Design (.5) 3704 Advanced Web Design (.5) 3706 Introduction to Networking (.5) 3708 Introduction to Java Programming (1.5) 3709 Technology Literacy (.5) 5801 Cisco Academy (1.5) 8600 Exploring Technology (.5) 8603 Transportation Technology (.5) 3315 Honors Research Science (1.0) 3318 Ethical Issues in Science (.5) Or a 4th year of Science can count as an elective.

> **Other Global Electives** 8220 Criminal & Civil Law (.5)



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, guidance counselor, and principal or designee, 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 band and orchestra, and students with disabilities. 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 arena at a time, accompanied by the report room teacher. The arena is well staffed with teachers from each department, guidance counselors, and office of collegiate affairs director, 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, <u>no</u> student will be denied the appropriate core academic course required. At the conclusion of the arena, 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. 3. Advancing their studies so that they can move to a higher level in a subject area
- 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 principal's office. Students who wish to seek credit for a course by demonstrating proficiency must inform the principal 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 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 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.

OV eLearning/OVO

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. 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 OV 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.

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 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. A review team, headed by the principal, will determine student placement into these courses.

Course Titles

Art

- 8813 Ceramics I (.5)
- 8818 Ceramics II (.5)
- 8817 Sculpture (.5)
- 8842 Metals and Jewelry (.5)
- 8812 Beginning Drawing & Painting (.5) 8841 Intermediate Drawing & Painting (.
- 8841 Intermediate Drawing & Painting (.5)8816 Advanced Drawing & Painting (.5)
- 8837 Introduction to Digital Imaging (.5)
- 8838 Introduction 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)
- 4807 AP Art History (1.0)

English and Communication Skills

- 3108 English 9 (1.5)
- 4108 Honors English 9 (1.5)
- 3195 English 10 (1.5)
- 4110 Honors English 10 (1.5)
- 3111 English 11 (1.0)
- 4111 Honors English 11 (1.0)
- 8116 21st Century English (.5)
- 8117 Science Fiction Literature (.5)
- 8118 Elements of Humor (.5)
- 8119 Documentary Writing and Production (.5)
- 8122 Sports Literature (.5)
- 8910 CHS Argument, Communication & Rhetoric (1.0)
- 4113 AP English Literature (1.5)
- 4114 AP English Language and Composition QVO (1.5)
- 8108 Mythology (.5)
- 8109 How to Read a Film (.5)
- 8113 Creative Writing (.5)
- 8123 Adv. Creative Writing (.5)
- 8115 Literature on the Stage Theatre I (.5)
- 8121 Literature on the Stage Theatre II (.5)
- 8120 Film Writing and Production (.5)
- 3115 Language Arts I (1.0)
- 3116 Language Arts II (1.0)
- 3100 Standards Based Reading (.5)

Family and Consumer Sciences

- 8701 Foods I (.5)
- 8708 Cooking Essentials (.5)

Instructional Technology

- 3706 Intro to Networking (.5)
- 3703 Intro to Web Design (.5)
- 3704 Adv Web Design (.5)
- 3709 Technology Literacy (.5) 3708 Intro to Java Program (1.5)
- 3708 Intro to Java Program (1.5) 5801hv Cisco Academy QVO (1.5)
- 5803hv Engineering Design I QVO (1.5)
- 5702hv Game Design QVO (.75)
- 5802hv AP Computer Science QVO (1.5)
- 5002iiv Ai Computer Science QVO (1.

Mathematics

- 3400 Standards Based Math (.5)
- 3403 Pre-Algebra (1.5)
- 3406 Integrated Math I (1.5)
- 3420 Integrated Math II (1.5)
- 3432 Integrated Math III (1.5)
- 3421 Algebra II (1.5)
- 4421 Honors Algebra II (1.5)
- 3411 Functions, Statistics & Trigonometry (1.5)
- 4410 Honors Functions, Statistics and Trigonometry (1.5)
- 3412 Precalculus & Discrete Math (1.5)
- 4408 Honors Precalculus (1.5)
- 4412 AP Calculus (AB) (1.5)
- 4415 AP Calculus (BC) (1.5)
- 8913 CHS Calculus (1.5)
- 8405 Statistics (1.5)
- 4413 AP Stats QVO (1.5)

Music

- 8799 Honors Band (1.5)
- 8798 Concert Band (1.5)
- 8802 String Orchestra (1.5)
- 8803 Concert Choir (1.5)
- 8822 Music Theory (1.0)
- 8808 Keyboard Lab (.5)
- 8795 Stage Lighting and Sound (.5)
- 4820 AP Music Theory (1.5)

Honors Personal Project

5008 Honors Personal Project (1.0)

sed Reading (.5)

Physical Education/Wellness

- 8005 Health & Wellness I (.5)
- 8006 Health & Wellness II (.5)
- 80010 Physical Education (.5)

Pre-Engineering Technology

- Exploring Technology (.5) 8600
- 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)
- Honors Biology (1.5) 4309
- 3311 Chemistry (1.5)
- 3306 Integrated Physical Science (1.0)
- 3314 Conceptual Physics (1.0)
- 3313 Physics (1.5)
- Honors Research Science (1.0) 3315
- 3318 Ethical Issues in Science (.5)
- 4310 Honors Chemistry (1.5)
- 4311 AP Biology (1.5)
- 4312 AP Chemistry (1.5)
- AP Physics I (1.5) 4316
- 5303hv 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
- U.S. History (1.0) Honors U.S. History (1.0) AP U.S. History (1.5) 4211
- 4212
- 3213 Economics (.5)
- 8210 International Relations Theories (.5)
- 3212 Politics (.5)
- 4213 AP European History (1.5)
- 8211 Introduction to Psychology (.5)
- 4350 AP Psychology (1.0)
- 8220 Criminal and Civil Law (.5)
- Modern History through Pop Culture (.5) 8860
- AP US Government & Politics QVO (.75) 4214
- 4215 AP Macroeconomics QVO (.75)
- AP Microeconomics QVO (.75) 4216

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)
- 3510 German I (1.5)
- 3530 German II (1.5)
- 3545 German III (1.5)
- Honors German IV (1.5) 4525
- 3544 Spanish II (1.5)
- 3541 Spanish III (1.5)
- 4503 Honors Spanish IV (1.5)
- 4512 AP Spanish (1.5)
- 5501hv Mandarin Chinese (1.5)

Career Technical Center Programs*

- Auto Body Repair I-III 9911-9913
- 9914-9916 Auto Technology I-III
- 9920-9922 Construction Tech Cluster I-III **Cluster consists of:** Building Construction Technology Electrical Systems Technology HVAC Masonry 9929-9931 Cosmetology I-III 9968-9970 Culinary Arts I-III 9923-9925 Digital Multimedia I-III
- 9947-9949 Health Assistant I-III
- 9932-9934 Information Technology Essentials I-III
- 9977-9979 Public Safety Tech I-III
- 9987-9989 Veterinary Technology I-III
- 9938-9940 Welding Technology

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

QVO-Quaker Valley Online

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.



Prerequisite: None

Objectives: Students will learn basic techniques in this entry-level three-dimensional class focusing on the medium of clay.

Description: This is the first course for students interested in pursuing 3-D artwork. This course is the pre-requisite for all other 3-D courses and must be taken sequentially. Students will learn basic hand-building and wheel construction 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.

Expectations: Students will complete all projects related to hand-building techniques; complete at least one project using the potter's wheel; learn glazing, texturing, and other surface techniques; keep a developmental workbook; and research in an area of focus.

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

Prerequisite: Ceramics I

Objectives: Students will learn advanced techniques and conceptual approaches in this second section of ceramics focusing on the medium of clay.

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

Objectives: Students will build on their knowledge of 3-D form learned in ceramics and explore other media used to create sculpture, beginning to build a 3-D repertoire.

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 2-D to 3-D. 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.

Expectations: 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 workbook.

8842 METALS AND JEWELRY Grades 11 – 12 .5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will continue to build on their knowledge of 3-D media to create their own conceptual work.

Description: Students should have completed ceramics I and sculpture and be prepared to continue to work with metal to explore its conceptual and functional potential. Students will be introduced to basic metalsmithing techniques including jewelry making and enameling.

Expectations: Students will use metals as a vehicle for conceptual ideas. Students will explore a variety of more advanced techniques and media including metalsmithing and enameling. Students will keep a developmental workbook and participate in class critiques.

8812 BEGINNING DRAWING & PAINTING Grades 9 – 10 .5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will build on their knowledge of the Elements and Principles of Art in this entry level two-dimensional class focusing on drawing and painting media.

Description: This is the first course for students interested in two-dimensional work. This course is the prerequisite for all other twodimensional 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.

Expectations: Students will review and develop a deeper understanding of the Elements and Principles of Art; complete drawing assignments; complete painting tasks in watercolor, acrylic, and exploration in oil mediums; students will keep a developmental workbook.

8841 INTERMEDIATE DRAWING & PAINTING Grades 10 – 12 .5 Credit/1 Trimester



Prerequisite: Beginning Drawing and Painting

Objectives: Students will build on their knowledge of drawing and painting media with a variety of techniques and 2-D media.

Description: This course builds on terms and use of media related to two-dimensional 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 two-dimensional media building on conceptual thinking.

Expectations: Students will complete all drawing, painting and other 2-D media assignments. Students will keep a developmental workbook. 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

Objectives: Students will continue to build on the knowledge learned in Two-Dimensional Art focusing on a variety of media to create their own conceptually based work.

Description: This course continues to build on terms and use of media related to two-dimensional 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.

Expectations: Students will complete al drawing, painting and other 2-D media assignments. Students will keep a developmental workbook; participate in class critiques, and begin to build a portfolio of artwork.

8837 INTRODUCTION TO DIGITAL IMAGING Grades 9 - 12 .5 Credit/1 Trimester



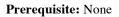
Prerequisite: None

Objectives: Students will be introduced to digital imaging and will learn how to use imaging software and hardware.

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. **This class is offered on a rotating schedule.**

Expectations: Students will be able to use a digital camera, scanner, and software to edit photographs. They will be able to make accurate selections and use the basic tools and functions of the software.

8838 INTRODUCTION TO COMPUTER ILLUSTRATION Grades 9 - 12 .5 Credit/1 Trimester



Objectives: Students will learn how to create artwork on the computer using a vector based illustration program.

Description: Introduction to Computer Illustration will be an entry-level class in creating artwork on the computer. Students will be using 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. **This class is offered on a rotating schedule.**

Expectations: Students will be able to use the basic tools and menus in the software to create original works. Students will have an understanding of basic graphic arts concepts.

8839 ADVANCED DIGITAL IMAGING Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: Intro. to Digital Imaging

Objectives: Students will learn advanced techniques for working with digital images.

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.

Expectations: Students will be able to use the software tools to create more advanced works. They will be proficient at making selections and will be able create their own custom tools.

8840 ADVANCED COMPUTER ILLUSTRATION Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: Intro. to Computer Illustration

Objectives: Students will continue to learn how to use the software to create original vector artwork.

Description: Advanced Computer Illustration will focus on honing the students Illustrator skills. They will learn to use and create custom brushes, patterns, styles, envelopes, and filters. They will 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.**

Expectations: Students will complete all projects and will demonstrate a better understanding of the tools and processes of the graphics arts.

8843 3D DESIGN AND ANIMATION Grades 9-12 .5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will learn how to create 3D graphics and animation.

Description: 3D Design and Animation will be a course to introduce students to the concepts and software used to create 3 dimensional 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.

Expectations: Students will understand the concepts of 3D animation and design

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.

Objectives: Students will develop a body of 25 + works. The goal of the course is to create a portfolio for submission to the College Board for college credit. The AP Studio portfolio consists of 3 sections, the breadth section – comprised of teacher driven assignments, the concentration section – comprised of an area of conceptual focus chosen for exploration by the student, and the quality section – comprised of 5 works that represent the students' best work.

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. Students 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.

Expectations: Students will complete a portfolio of no less than 25 works of art in a chosen area of concentration; participate in class critiques and discussion; keep a sketchbook, and participate in all field and group activities.

Prerequisite: None

Objectives: Students will...

- Apply fundamental art and art historical terminology
- Develop an appreciation for the process of making and displaying art
- Understand the purpose and function of art
- Develop the ability to analyze works of art in context of historical evidence and interpretation, examining such issues as politics, religion, patronage, gender, and ethnicity.
- Understand the cross-cultural and global nature of art.
- Develop the ability to perform higher order thinking skills and articulate visual and art historical concepts in verbal and written forms.

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.

Expectations: The course does not require prior knowledge of art history, or the desire to major in art history in college. It requires a high degree of commitment to academic work and to the purposes of a program designed to meet college standards. Students who have done well in other humanities, such as history and literature, or in any of the studio arts, are especially encouraged to enroll.

English and Communication Skills

Honors English Course Expectations (4000 Level Courses)

Reading expectations

- **Prerequisite reading skills**: Students will be expected to read and comprehend texts independently. They will be quizzed on these readings and will be expected to recall and comprehend the readings with minimal teacher intervention.
- 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 six major works during this course. In addition, they will read pieces of shorter fiction, non-fiction, and poetry.

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 six formal writings during this course. In addition, students will complete an average of one to two informal writing assignments per week.

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 six-week 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.

English Course Expectations (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 **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.

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 **four formal writings** during this course. In addition, students are required to complete at least **one informal writing assignment each week**.

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 and average of 2-3 hours of work per week outside of the regular school day.

3108 ENGLISH 9 Grade 9 1.5 Credits/3 Trimesters

Prerequisite: English 8

Objectives: 1. To emphasize the writing process; 2. to write in both personal and expository forms; 3. to develop students' appreciation and understanding of literature and its relevance to their lives; 4. to review skills in grammar, usage and vocabulary; 5. to develop critical thinking skills through discussion; 6. to prepare students for the PSSA writing assessment and the SAT writing assessment.

Description: This course focuses on helping students develop their skills in the different strands of English such as writing, reading, literary analysis, speaking, listening, organization, vocabulary, and grammar.

Writing assignments will encompass various modes and assessments including the PSSA writing rubric. A special emphasis will be placed on preparation for the PSSA in writing. Multicultural readings will combine classic, contemporary, and adolescent literature with articles from magazines, newspapers, or the Internet. Critical reading skills will be covered, along with traditional literary concepts. Students will participate in discussions and asked to be attentive, support claims, and summarize points. Vocabulary and grammar will be addressed through targeted mini-lessons and applied through writing.

Expectations: Students will maintain a writing folder in which they include examples of the writing process from drafting through a final edited version. They will read both in class and independently a number of novels throughout the year. They will develop and practice critical thinking skills through their daily assignments and assessments.

4108 HONORS ENGLISH 9 Grade 9 1.5 Credits/3 Trimesters

Prerequisite: Honors English 8 (Fast track) or recommendation of teacher from preceding year.

Objectives: 1. To develop confidence and proficiency in the writing process; 2. to develop critical reading and thinking skills; 3. To appreciate literature by examining themes and styles, and by exploring literature's relevance to our world. 4. to prepare students for the PSSA writing assessment and the SAT writing assessment.

Description: This course focuses on developing the knowledge and skills necessary for students to excel in writing, critical reading and thinking, and literary analysis. Students will employ the writing process to write in various modes for various audiences, with an emphasis on analytical writing. Students will employ active reading skills to question the author, the text, and themselves. In addition to exploring the forms, ideas, devices, and language of literature, students will read and analyze thematically and stylistically related essays and articles. Higher order thinking will be stressed throughout the year.

Expectations: Students will maintain a writing folder and notebook. Student writing will reflect a high measure of effort, creativity, clarity, and ownership. Students should be prepared to read sophisticated, challenging pieces with a critical eye and engage in student-driven learning, collaborative activities, and class discussions.

3195 ENGLISH 10 Grade 10 1.5 Credits/3 Trimesters

Prerequisite: English 9

Objectives: 1. To refine students' basic skills in reading comprehension and writing; 2. To develop students' critical thinking skills and approaches to learning; 3. To expand students' appreciation of literature and its relevance to their lives.

Description: This course focuses on reinforcing and further developing competency in writing, reading, literary analysis, speaking and listening, organization, vocabulary, and grammar. Writing assignments will add subtlety and sophistication to the basic PSSA modes. A variety of articles and literature will be chosen to develop higher order critical reading skills and knowledge of literary concepts. Students will participate in discussions and other forms of communication in which they are asked to be attentive, support claims, and summarize and evaluate points made by others. Each student will maintain a three-ring binder with tabbed sections to organize handouts, notes, and work. Vocabulary and grammar skills will be addressed through targeted mini-lessons and applied through writing.

Expectations: Students will maintain a writing folder, journal, reading log, skills log, and notebook. Students will be responsible for completion of all assigned readings. Students will work productively in class by themselves and with others and regularly complete overnight and long-term homework assignments.

4110 HONORS ENGLISH 10 Grade 10 1.5 Credits/3 Trimesters

Prerequisite: Honors English 9 and fulfillment of honors requirement

Objectives: Students will be able to: 1. analyze and interpret literature by examining elements of setting, plot, character, conflict, style, motif, and theme. Literary terms and style descriptors will be emphasized. 2. demonstrate advanced skills in the PSSA Writing Domains of Focus, Content, Organization, Style, and Conventions. Elaboration, clarity, and conciseness will be emphasized. 3. determine main idea (stated or implied), organizational structure, and writer's purpose, audience, tone, and bias in articles and essays; 4. employ higher-order thinking in solving problems related to language.

Description: This course is an advanced, comprehensive study of English: literary analysis, composition, and reading comprehension, with mini-lessons on problem areas in grammar and vocabulary. Literary selections represent an array of genre and time periods. Writing assignments will cover persuasive, informational, reflective, and narrative modes, as well as shorter writing-to-learn pieces. Creative pieces (poems, stories, plays) may be included. Thematically and stylistically relevant articles and essays will be drawn primarily from current periodicals.

Expectations: Students should have a genuine interest in language and literature. They will be expected to read challenging works critically and write with precision and sophistication. Students must maintain an organized binder and be able to work independently and collaboratively.

3111 ENGLISH 11 Grade 11 1 Credit/2 Trimesters

Prerequisite: English 10

Objectives: 1. To introduce students to the literature of America; 2. to improve students' thinking and writing skills through creative writing, essay writing, and discussion; 3. to reinforce students' public speaking and oral communication skills; 4. to review grammar, usage, and vocabulary as necessary for reading, writing, and speaking.

Description: The course concentrates on American literature, emphasizing the necessity for reading, thinking, and responding critically in both speaking and writing. Novels and drama are the focus of small and large group activities, reader's theatre, write-to-learn responses, and longer essays.

Expectations: Students are expected to recognize and apply basic literary concepts--plot, theme, conflict, character--and move on to more sophisticated understandings of authors' styles. Longer creative writings and essay writing are produced to practice full development of ideas as well as appropriate grammar and usage. Students regularly present to the class, both formally and informally. Vocabulary study, which helps students to prepare for the SAT, emphasizes using words in context.

4111 HONORS ENGLISH 11 Grade 11 1 Credit/2 Trimesters

Prerequisite: Honors English 10 and fulfillment of honors requirement

Objectives: 1. To recognize the cultural, political, and social values raised by American literature; 2. to refine skills in literary criticism, research, and documented analysis; 3. to practice appropriate conventions of language in speech and writing, reviewing vocabulary, grammar, and usage through composition.

Description: Students will read extensively in a variety of genres and develop skills in close literary analysis. Writings will include in-class timed responses to readings, longer critical papers, formal arguments, editorials, creative writings, and documented research project. Students will also present formal speeches, teach the class, and participate in workshops and reader's theatre.

Expectations: Students will be expected to apply a range of techniques of literary criticism in their analyses. Writings will go beyond description of theme and plot to recognition of authors' stylistic strategies. Students will participate actively in class through student teaching, skits, debates, oral presentations, and cooperative group assignments. Each student will read biography, major works, and criticism related to a major author, then produce a documented research paper.

8116 21st CENTURY ENGLISH Grade 12 .5 Credit/1 Trimester



Objectives: 1. To understand what challenges and opportunities result from the rapid changes of the 21st century, and to equip students to respond appropriately to these changes; 2. To refine writing and speaking skills by being aware of purpose and audience.

Description: This course will focus on communication—specifically writing, as well as speaking, listening, and reading—skills necessary to survive and thrive in the competitive 21st Century. Appropriate use of technology will be stressed, with topics ranging from investigating source validity to using proper online etiquette. Selections from full-length nonfiction works and multicultural novels/memoirs will round out the reading requirements for the course and help boost students' global awareness. Discussion and collaboration opportunities will allow students to enhance their "soft skills" and prepare for their future careers.

Expectations: Some of the writing includes resumes, personal statements, emails, digital posts, formal letters, proposals, and essays. Students will participate in interviews, speeches, literature circles, group presentations, and whole class discussions, and they will read current articles that relate to daily lessons.

(This course is mandatory unless taking AP English or CHS Arg. Comm and Rhet)

8117 SCIENCE FICTION LITERATURE Grade 12 .5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To recognize science fiction as a distinct literary genre; 2. To examine the evolution of science fiction from dime novels to the Internet; 3. To interpret science fiction's insights about human nature and society; 4. To evaluate the literary qualities and style of science fiction; 5. To explore the appeal and impact of science fiction.

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.

Expectations: Students are expected to read two science fiction novels, expand their vocabularies with scientific terms and knowledge of their word parts, write creatively and analytically, contribute to online discussion boards without using messaging shortcuts, work in groups, and utilize technology to research and present information and viewpoints.

8118 ELEMENTS OF HUMOR Grade 12 .5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To analyze and evaluate various theories of humor; 2. To compare and contrast basic genres of humor, including the presence or absence of social consciousness; 3. To correlate narrower types of humor to the genres they typically inhabit; 4. To recognize and utilize specific devices of humor

Description: This course will explore the fundamentals of comedy. What makes people laugh and why? Is there a theory of humor that connects 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.

Expectations: Students will respond to humorous works through class discussions, journals, essays, and quizzes. Students will demonstrate content knowledge by creating and sharing humorous works of their own, utilizing specific concepts and techniques learned in class.

8119 DOCUMENTARY WRITING AND PRODUCTION Grade 12 .5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To examine the current resurgence of documentary films and filmmaking; 2. To compare and contrast sub-genres of documentary films; 3. To recognize specific techniques of the genre, especially those that are emotionally or subliminally manipulative; 4. To analyze and evaluate bias in documentary films; 4. To create films with a specific focus, audience, purpose, and tone, based on research.

Description: Students will learn to harness the power of sound, image, and language to change or broaden attitudes and perceptions. Through documentary filmmaking, students will employ techniques that appeal to the emotions. The course will emphasize integrity, requiring that students avoid questionable methods of audience manipulation. In addition, students will become scholars of documentary techniques and issues and conduct research relevant to their films.

Expectations: Students are expected to view documentaries and analyze them through discussion and essays. In addition, each student will write, produce, and direct one or more short documentaries. Students will demonstrate knowledge of focus, audience, purpose, tone, research, bias, and techniques through quizzes, essays, and film projects.

8122 SPORTS LITERATURE Grade 12 .5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To recognize sports literature as a distinct literary genre; 2. To examine the evolution of sports and its literature; 3. To analyze the effect of sports on human nature and society; 4. To evaluate the literary qualities and style of sports literature; 5. To explore the appeal and impact of sports and its literature on society; 6. To address and discuss stereotypes in sports

Description: This course will focus on both fiction and nonfiction sports literature. Students will read critically acclaimed literature (novels and biographies) and 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.

Expectations: Students are expected to read two novels. Students will write about the novels and other pieces of literature. Students will participate in online discussions and class discussions about the genre. Students will analyze the impact of sports and its literature through research and discussion.

8910 CHS ARGUMENT, COMMUNICATION AND RHETORIC (This is a College in High School course from the University of Pittsburgh worth 3 College Credits) Grade 11 or 12 1 Credit/2 Trimesters Prerequisite: None



Objectives: 1.To examine the fundamentals of argument; 2. to develop and apply proficiency in the fundamentals of argument.

Description: This introductory course (available for college credit) from the University of Pittsburgh's College in High School Program examines the fundamentals of argument theory and intends proficiency in the application of formal debating techniques. There are two main components in the course. The first examines the foundations of argument construction, support, and refutation. The second component offers students opportunities to apply their communication/argument skills through in-class debates, including Lincoln-Douglas debate, policy debate and mock trial. Students will also analyze the elements of propaganda and eloquence. Assessment involves quizzes on various concepts of argument theory, a mid-term examination, collaborative preparation of debate/mock trial briefs, written evaluation of speeches/debates, as well as class participation and debate performance. Finally, students will have the opportunity to participate (and compete) in a public forum/debate tournament at the University of Pittsburgh.

Expectations: Students will participate in several debates (including mock trial) in front of an audience. Plus, they will submit written evaluations of speeches, debates and trials they have observed. Students will complete extensive research to support their briefs and debate performances. Overall, students will cooperatively prepare a minimum of 50 pieces of evidence from at least 10 different sources. A research paper is also required. Several tests and quizzes will check understanding of argument theory.

4113 AP ENGLISH LITERATURE Grade 12 1.5 Credits/3 Trimesters



Prerequisite: Honors English 11 and/or fulfillment of the honors requirement. This is a college level course.

Objectives: 1. To offer students a college level seminar course which challenges them to explore other cultures and interpret varied literary genres; 2. to refine writing skills; 3. to prepare students for demanding college English programs as well as for the AP examination.

Description: The AP English Literature and Composition course engages students in the careful 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 done 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 creative writing and writing reviews. Throughout the course, emphasis is placed on helping students develop stylistic maturity in their own writing. Students are required to take the AP Literature and Composition exam.

Expectations: Students will read extensively, beginning with works assigned over the summer and will develop tools for close textual analysis. Both timed writings and take home papers will be assigned. Students are expected to become a community of learners, sharing their response to the texts. Students are required to take the AP English exam.

4114 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.

8108 MYTHOLOGY Grades 11 - 12 .5 Credit/1 Trimester



Prerequisite: None

Objectives: 1.To explore various mythologies of the ancient and medieval world; 2. to relate classic mythology to modern cultural and artistic expression; 3. to understand mythology's influence on modern entertainment forms.

Description: The course will examine world mythology and its cultural influence over the years. It will explore various mythologies produced by ancient societies in an effort to explain the world and the meaning of human existence. It will study major themes of mythology. The course will make use of modern media as well as written literature.

Expectations: 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 modern entertainment forms, the student will recognize how cultural identities are still shaped by timeless tales penned by some of the world's greatest writers.

8109 HOW TO READ A FILM Grades 9 - 12 .5 Credit/1 Trimester

Prerequisite: None

Objectives: Students will be able to: 1. recognize and identify various techniques used in film, such as camera angle, color and contrast, editing, music, sound, and design; 2. analyze these techniques to gain a greater understanding of a film's meaning; 3. articulate the conscious and unconscious effects these various techniques have on an audience's emotions; 4. interpret and evaluate films based on their cinematic attributes.

Description: Just as poets and novelists use literary and language devices to convey ideas, filmmakers use the medium's own special language to convey character, plot, and theme. This course will help students learn how to "read" this language so they may better appreciate what helps movies have such an impact on their audiences.

Expectations: In class, students will analyze clips from classic and popular films and screen a few films in their entirety. Students will also be required to view several films at home or in theatres (some chosen by them and some by the instructor.) Writing assignments will include viewer response journals, film analyses and reviews, and an expository presentation on film technique. Students will be required to read scenes from movies and one full screenplay (to be followed by a screening of the filmed versions). If possible, or as an optional assignment, students will create a short video or videos demonstrating an understanding of cinematic techniques.

8113 CREATIVE WRITING Grades 9-12 .5 Credit/1 Trimester

Prerequisite: Students will select this course in grade eleven or twelve. Students in grades 9 and 10 may apply for early admission if they are recommended by their English teacher. Students may select this course for one term only or may continue for two or three terms.

Objectives: 1. To experiment with a variety of written and oral expression; 2. to develop their own voices and style in writing; 3. to practice the process of writing from prewriting through editing; 4. to practice techniques for evaluating the writing of others; 5. to share written work by publishing in the school literary magazine, *Bittersweet*, and other outside sources.

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.

Expectations: Students keep a journal of writing based upon class writing exercises. Students will test their writing on an audience of peers and edit their work for publication. Students will develop a portfolio of their best work in which they write a self-evaluation of the process involved in developing that work. Students will develop working criteria for judging effective student writing.

8123 ADVANCED CREATIVE WRITING Grade 12 .5 Credit/1 Trimester

Prerequisite: Creative Writing

Objectives: 1. Students will study figurative language in context and explore an author's use and purpose of figurative language 2. Students will study voice, style, tone, audience, and syntax in both their own writing as well as others' 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.

Expectations: 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 *Bittersweet*.

8115 LITERATURE ON THE STAGE THEATER I Grades 9 - 12 .5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To introduce students to a variety of dramatic works in order to examine an actor's use of critical thinking and presentation skills in accordance to a genre of theatre; 2. to examine and practice aspects of play production, e.g. blocking, costume design, use of set; 3. to analyze themes within a range of theatre works; 4. to build confidence, cooperation, and communication skills in preparing, performing and evaluating a production.

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.

Expectations: The course will include examination, performance and even creation of literature for the stage. Students will be involved in both small and large group productions, designed not only to communicate literary aspects of the plays but also incorporate appropriate theatre exercises and methodology as a means to perform effectively. Students will write creatively to expand and apply knowledge of characterization technique. Students will also complete written analysis of established characters and themes. Quizzes and/or tests will check understanding and application of essential technical and performance elements in theater production.

8121 LITERATURE ON STAGE THEATER II Grades 9 - 12 .5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To introduce students to various dramatic works in order to examine an actor's use of style as it is applied to a genre of theatre and the context of a historical time period; 2. to examine and practice aspects of play production, e.g. blocking, costume design, use of set; 3. to analyze themes within a range of theatre works and determine influences of different time periods; 4. to build confidence, cooperative skills, and critical thinking in preparing, performing and evaluating a production.

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.

Expectations: The course will include close readings of selected works. Students will be involved in both small and large group productions, designed not only to communicate literary aspects of the plays but also incorporate appropriate theatre exercises and methodology as a means to perform effectively. Students will also be expected to create original work for the stage based on our study of published work. Various writings will analyze characters, cultural elements, themes, etc. from the plays. Quizzes and tests might be used to check understanding of the theatre's place throughout different historical periods.

8120 FILM WRITING AND PRODUCTION Grades 10 - 12 .5 Credit/1 Trimester

Prerequisite: English 9

Objectives: Students will be able to write a short, effective screenplay in professional format; convert a screenplay to a shooting script; manage a production shoot; film using digital camera technology; tell a story using established film techniques; digitally edit for continuity, emotional impact and meaning; and add music, titles and additional sound in post-production.

Description: This course will take advantage of the new digital recording and editing technology available in our district. As a result of this course, students will gain the knowledge and skills necessary to write, produce, direct and edit their own short narrative film productions.

Expectations: Students will be required to write short narrative screenplays in a professional format that incorporate structured story lines, characterization and theme. Students will then produce, perform in, direct and edit films based on these scripts. Select films will be broadcast on QVTV and during SPAM (Drama Club's Short Plays and Monologues fall production). Students will also be graded on class work and homework.

3115 LANGUAGE ARTS I Grades 9 & 10 1.0 Credit/2 Trimesters

Prerequisite: Placement in this course is pre-determined by testing data

Objectives: 1. To examine all dimensions of literacy 2. To develop proficiency in word identification, spelling, vocabulary, grammar and usage, reading comprehension, speaking and writing.

Description: This introductory course gains instructional power by integrating concepts and skills among its six steps. The words students learn to read and spell in a unit are the basis for vocabulary, grammar, and reading in other steps of the same unit. Once students can identify the words fluently, they can devote attention to learning complex vocabulary, mastering grammar and usage, developing reading comprehension and expanding composition skills.

Expectations: Students with reading delays will participate in the direct instruction and monitor their progress of fluency checks. Students will read in class and will develop confidence and skills needed reading.

3116 LANGUAGE ARTS II Grades 9 & 10 1.0 Credits/2 Trimesters

Prerequisite: Placement in this course is pre-determined by testing data

Objectives: 1. To examine all dimensions of literacy 2. To develop proficiency in word identification, spelling, vocabulary, grammar and usage, reading comprehension, speaking and writing.

Description: This introductory course gains instructional power by integrating concepts and skills among its six steps. The words students learn to read and spell in a unit are the basis for vocabulary, grammar, and reading in other steps of the same unit. Once students can identify the words fluently, they can devote attention to learning complex vocabulary, mastering grammar and usage, developing reading comprehension and expanding composition skills.

Expectations: Students with reading delays will participate in the direct instruction and monitor their progress of fluency checks. Students will read in class and will develop confidence and skills needed reading.

3100 STANDARDS BASED READING Grade 12 .5 Credit/1 Trimester (A or C)

Prerequisite: Basic or Below Basic Score on PSSA in 11th grade

Objectives: (1) To become proficient in reading comprehension and literary analysis, per the PA benchmarks. (2) To become lifelong critical readers.

Description: Students will build their vocabularies for discussing materials they read. They will actively read passages and answer exam-style multiple choice questions as well as open-ended ones. They will discuss elements of fiction (such as theme) and nonfiction (such as bias).

Expectations: Students are expected to complete all classroom work and may be expected to finish some reading assignments as homework. Students are also expected to retake the reading PSSA in October and/or the 3 local assessments in the spring to demonstrate proficiency.

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

Objectives: 1. To become familiar with basic nutritional principles as related to the food pyramid; 2. to develop skills in planning nutritionally balanced meals; 3. to develop skills in the practical application of food preparation in a laboratory environment while utilizing a variety of equipment.

Description: The primary focus is on the practical application of food preparation and basic skills along with nutrition principles. Through the preparation and evaluation of tempting recipes, hands-on experience will be gained. The major units of study include knife skills, baking, potatoes, eggs, poultry, and pasta.

Expectations: Students will plan, select, and prepare food products that show an understanding of nutrition principles, preparation techniques, and equipment mastery.

8708 COOKING ESSENTIALS Grades 9-12 .5 Credit/1 Trimester

Prerequisites: None

Objective: To learn the essential skills for preparing healthy meals at home.

Description This class will introduce the fundamentals of knife skills, food selection and storage, use of herbs and spices, baking, and other culinary concepts that will encourage home-cooked, healthy eating. Through readings, online research and hands on lab experiences students will be exposed to the essential techniques of cooking. Equipping students with the knowledge of proper preparation techniques and the know how to effectively flavor foods will promote healthy lifestyle choices associated with dining in.

Expectation: The students are responsible for contributing to and enhancing the units of study.

Instructional Technology

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 changes constantly. Our students must be taught not only basic skills but also ways to adapt to those constant 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.

3706 INTRODUCTION TO NETWORKING Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: None.

Objectives: 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.

Description: The course Introduction to Computers & Networking introduces a student to information technology and data communications. The course is designed to provide students with classroom and laboratory experience stressing laboratory safety and working effectively in a group environment. Students will learn how to build a computer and install and/or work with operating systems such as Windows 98, and Windows NT, 2000, and XP. This course is an introduction to information technology (IT) that includes an overview of IT, math for the digital age, introduction to networking, PC maintenance, safety and troubleshooting. An indepth exposure to personal computer hardware and desktop operating systems including software will provide the students with knowledge and functionality of hardware and software components. The course will rely heavily on the Cisco Networking Academy's online curriculum (IT Essentials I: PC Hardware and Software) and assessment server. The understanding of how computers can be applied to academic and real world examples will be examined.

Expectations: Students will be required to explain and demonstrate basic computer operations, and pass all exams, quizzes, and laboratory projects. Students will keep a notebook throughout the course. The BlackboardTM Content Management System will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and/or exams.

3703 INTRODUCTION TO WEB DESIGN Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: None.

Objectives: The Introduction to Web Design course focuses on improving a students' understanding of the World Wide Web as they design, analyze, program and publish web pages in HTML (Hypertext Markup Language).

Description: The Introduction to Web Design 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.

Expectations: Students will be expected to create and program a website in HTML as well as complete all lessons, pass exams/quizzes, projects, and submit a final course website which will integrate all HTML programming techniques. Students will keep a notebook throughout the course. The BlackboardTM Content Management System will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and/or exams.

3704 ADVANCED WEB DESIGN Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: None. However it is recommended that students complete 3703 Introduction to Web Design before enrolling in this course.

Objectives: The Advanced Web Design course explores the power of the World Wide Web by providing an intense classroom and laboratory experience in the following software packages: Adobe Dreamweaver, Fireworks and Flash. Students will design, analyze and publish their own websites like professionals.

Description: Advanced Web Design focuses on web site architecture with particular emphasis on design elements involving layout, navigation and interactivity. Hands-on web design exercises will be taught using Adobe Dreamweaver, Fireworks, and Flash. 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.

Expectations: Students will be expected to develop online content for a website they will create as well as complete all lessons, pass exams/quizzes, projects, and submit a final course website which will integrate all Adobe software products. Students will keep a notebook throughout the course. The Blackboard[™] Content Management System will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and/or exams.

3709 TECHNOLOGY LITERACY Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: None.

Objectives: This course is designed to meet the needs of the 21st century learner. Students will utilize technology as a tool for communication, preparing them for success in future careers and in the global community. The course expands a student's knowledge of technology and encourages proficiency with a variety of software applications by allowing students to apply the skills to real world situations. Students will be provided with the knowledge of media literacy including web ethics, copyright and fair use, and Internet safety. Students learn the process of identifying technology needs and selections and apply their knowledge in order to develop appropriate computer technology to meet those requirements. Software, developing Web 2.0 skills, and applying this technology appropriately encompass the Technology Literacy course.

Description: The Pennsylvania Technology Standards will act as the foundation for the course. The Technology Literacy course provides students with knowledge and skills in seven areas: Spreadsheets, Word processing, Databases, Multimedia and Presentations, Telecommunications and Internet, Systems and Fundamentals and Social and Ethical issues of technology use. Students will review, learn, and apply a variety of software to accomplish tasks using Web 2.0 tools. In addition to learning the technical fundamentals of computer and software use, students will build upon skills in researching information and using technology to help explain the legal and ethical ramifications of technology.

Expectations: Students will complete assignments and project laboratories using applications covered in this course. Students will be required to explain and demonstrate basic computer operations and software use, in order to pass all exams, quizzes, and laboratory projects. The Blackboard[™] Content Management System will be utilized to post course content, submit assignments and assess student learning throughout the course.

3708 INTRODUCTION TO JAVA PROGRAMMING Grades 9 - 12 1.5 Credits/3 Trimesters



Prerequisite: None.

Objectives: 1. To introduce students to fundamental topics in computer science; 2. To develop and implement logic and analytical skills using the Java syntax; 3. To build a foundation of the basic concepts and methods of object-oriented programming and object-oriented design.

Description: 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.

Expectations: Students will be required to maintain an electronic notebook consisting of all class and laboratory notes along with programming assignments. It is expected that every student will participate in individual and group programming projects, discussions, daily homework assignments and earn a passing grade on all assessments.

5801hv CISCO ACADEMY QVO Grades 9 - 12 1.5 Credits/3 Trimesters Prerequisite: None.



Objectives: This is the first of two courses designed to provide students with experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. A task analysis of current industry standards and occupational analysis was used to develop the content standards. Instruction includes, but is not limited to, safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI models, cabling, cabling tools, routers, router programming, star topology, IP addressing, and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building, and environmental codes and regulations.

Description: This course will be taught online with the student meeting the instructor approximately once a month to complete laboratories and skill based assessments. The course will rely heavily on Cisco System's online curriculum and assessment server.

Expectations: Students will be expected to complete all lessons, pass exams/quizzes, projects, and successfully demonstrate networking & troubleshooting skills. Students will keep a notebook and laboratory journal throughout the course. The Blackboard[™] content management system and Cisco's assessment server will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and tests.

5803hv ENGINEERING DESIGN I QVO Grades 9 - 12 .75 Credits/1 Semester (Half of Year)

Prerequisites: None.

Description: In this introductory course you will learn computer-aided design skills necessary for a career in engineering. To this end, you will learn the basics of using CAD software to draw engineering plans and diagrams. Using CAD, you will become familiar with creating points, lines, geometric forms, drawings, and 3-D models. As you learn these basics, you'll gain the foundation that you need to translate abstract concepts into functional designs, a core engineering skill. During this course, you will create a diverse portfolio of projects that include orthographic projections, sectional views of 3-D objects, isometric drawings, and 3-D walkthroughs. Through these projects, you'll develop the skills you need to design and create CAD projects of your own.

5702hv GAME DESIGN QVO Grades 9 - 12 .75 Credits/1 Semester (Half of Year)

Prerequisites: None.

Description: This course is for anyone who loves gaming and wants to design games. You'll learn how to use popular game design software to create engaging, interactive games in a variety of genres. In addition, you'll get a solid foundation in the basic concepts of game development. By the end of this course, you will have a variety of polished games for your game development portfolio.

5802hv AP COMPUTER SCIENCE QVO Grades 11 – 12 1.5 Credits/3 Trimesters

Prerequisites: None.

Description: The AP Computer Science 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.

Mathematics

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

Requirements

All students must fulfill the district's graduation requirements of three years of mathematics in grades 9-12.

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

3400 STANDARDS BASED MATH Grade 12 .5 Credits/1 Trimester

Prerequisite: Score of Basic or Below Basic on the Keystone Exam or teacher recommendation

Objective: To be proficient on the Keystone exam

Description: Students will work with Number and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability. Calculators and Study Island will be integrated throughout this course.

Expectations: Students are expected to complete class work and classroom assignments, computer work, quizzes and test in order to become proficient on the Keystone exam.

3403 PRE-ALGEBRA Grade: 9 1.5 Credits/3 Trimesters

Prerequisite: none

Description: Pre-Algebra is the gateway course for all future mathematics courses. It is the foundation for all higher levels of mathematics. Pre-Algebra has a wide scope, including substantial amounts of geometry integrated with arithmetic and algebraic topics. A solid proficiency in basic calculations is a requirement for the course, as calculators are only permitted at the teacher's discretion. Technical reading and writing will also be emphasized through written explanations and justifications of problem solutions.

Expectations: The following units will be covered throughout the Pre-Algebra course: Algebra Toolbox; Integers and Exponents; Rational and Real Numbers; Collecting, Displaying and Analyzing Data; Plane Geometry; Perimeter, Area, and Volume; Ratios and Similarity and Probability.

3406 INTEGRATED MATH I Grade 9 1.5 Credits/3 Trimesters

Prerequisite: None

Objectives: 1. To become proficient with multiple representations of linear functions (problem statement, formula, graph, spreadsheet); 2. to introduce students to basic non-linear functions; 3. to develop skills in writing and speaking about mathematics; 4. to acquaint students with mathematical technology (computer tutors, calculators.)

Description: The main focus of Integrated Math I is linear functions. Students will also study some non-linear functions including quadratics and data analysis. The course stresses multiple representations for functions including written problem statements, formulas, graphs, and tables. The approach to teaching and learning includes cooperative and collaborative learning, mathematical modeling, use of scientific and graphing calculators, use of computer tutors, writing to learn mathematics, student projects, and student presentations.

Expectations: Students are expected to complete classroom and daily homework assignments, to work cooperatively with other students, to present work to a group or the class as a whole, to work approximately twice a week on a computer tutor, and to earn passing grades on assessments.

3420 INTEGRATED MATH II Grades 9 - 12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Integrated Math I.

Objectives: 1. To become proficient with multiple representations of quadratic functions, higher order polynomial functions, exponential functions, and radical functions; 2. to become proficient with the basic linear programming problems; 3. to become familiar with rational expressions; 4. to develop skills in writing and speaking about mathematics; 5. to acquaint students with mathematical technology.

Description: The main emphasis of Integrated Math II is advanced work with linear functions, quadratic functions, higher order polynomial functions, linear programming, exponential functions, radical functions, and some rational expressions. The course stresses multiple representations for functions including written problem statements, formulas, graphs, and tables. The approach to teaching and learning includes cooperative and collaborative learning, mathematical modeling, use of graphing calculators, use of computer tutors, writing to learn mathematics, student projects, and student presentations.

Expectations: Students are expected to complete classroom work and daily homework assignments, to work cooperatively with other students, to present work to a group or the class as a whole, to work approximately twice a week on a computer tutor, and to earn passing grades on assessments.

3432 INTEGRATED MATH III Grades 9 - 12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Integrated Math II.

Objectives: 1. To become proficient in working with geometric concepts; 2. to develop reasoning as an important aspect of mathematical thinking.

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 synthetic proofs. Work with coordinate and indirect proofs will also be discussed.

Expectations: Students are expected to complete classroom and daily homework assignments and projects and to earn passing grades on tests and quizzes. It is recommended that students who plan to take Advanced Algebra earn a final grade of C or better.

3421 ALGEBRA II Grades 9 - 12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Geometry and proficiency in Algebra.

Objectives: 1. To become proficient in using algebraic expressions and functions; 2. To model real-world situations using algebra.

Description: Students will work with the language of algebra, equations, functions, matrices, powers and roots, relations, polynomials, and basic statistics. Integrated throughout the course is work with graphing, geometry, and calculators.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. It is recommended that students who plan to take Functions, Statistics, and Trigonometry earn a final grade of C or better.

4421 HONORS ALGEBRA II Grade 9 1.5 Credit/3 Trimesters

Prerequisite: Successful completion of geometry and fulfillment of the honors requirement

Objectives: 1. To become proficient in using algebraic expressions and functions; 2. to model real-world situations using algebra.

Description: Students will work with the language of algebra, equations, functions, matrices, powers and roots, relations, polynomials, and basic statistics. Integrated throughout the course is work with graphing, geometry, and calculators. This course will be of greater scope and depth than the 3000 level course of the same name.

Expectations: Students are expected to complete classroom and daily homework assignments, journal entries and projects, and maintain a B average on tests and quizzes. Students who plan to take 4410 Honors Functions, Statistics, and Trigonometry must earn a final grade of B or better.

3411 FUNCTIONS, STATISTICS, AND TRIGONOMETRY Grades 10 - 12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Advanced Algebra

Objectives: 1. To become proficient in working with statistical, algebraic, and trigonometric concepts; 2. to acquaint students with available mathematics technology.

Description: Students will work with descriptive and inferential statistics, combinatorics, probability and exponential, logarithmic, and trigonometric functions. Algebraic and statistical concepts are integrated throughout, and the modeling of real phenomena is emphasized. Technology and real-world situations are major themes.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. It is recommended that students who plan to take 3412 Precalculus and Discrete Math earn a final grade of C or better.

4410 HONORS FUNCTIONS, STATISTICS, AND TRIGONOMETRY Grades 9 - 10 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Advanced Algebra and fulfillment of the honors requirement

Objectives: 1. To become proficient in working with statistical, algebraic, and trigonometric concepts; 2. to acquaint students with available mathematics technology.

Description: Students will work with descriptive and inferential statistics, combinatorics, probability, exponential and logarithmic, and trigonometric functions. Algebraic and statistical concepts are integrated throughout, and the modeling of real phenomena is emphasized. Technology and real-world situations are major themes. This course will be of greater scope and depth than the 3000 level course of the same name.

Expectations: Students are expected to complete classroom and daily homework assignments and projects and to maintain a B average on tests and quizzes. Students who plan to take 4411 Honors Precalculus, and Discrete Math must earn a final grade of B or better to qualify.

3412 PRECALCULUS AND DISCRETE MATH Grades 11 - 12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Functions, Statistics, and Trigonometry

Objectives: To integrate precalculus and discrete math topics while maintaining and enhancing algebraic skills and developing mathematical thinking at a high level.

Description: Precalculus topics include a review of the elementary functions, advanced properties of functions (including special attention to polynomial and rational functions), polar coordinates, complex numbers, and introductions to the derivative and integral. Discrete mathematics topics include recursion, induction, combinatorics, vectors, graphs, and circuits. Manipulation of complex rational expressions, not emphasized in previous courses, is discussed here. Mathematical thinking, including specific attention to formal logic and proof and comparing structures, is a unifying theme employed throughout the course.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. It is recommended that students who plan to take 8913 Calculus earn a final grade of C or better.

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

Prerequisite: Successful completion of Functions, Statistics, and Trigonometry, fulfillment of the honors requirement, and teacher recommendation.

Objectives: 1. To integrate precalculus and discrete math topics while maintaining and enhancing algebraic skills and developing mathematical thinking at a high level; 2. to include topics of calculus, where appropriate, to supplement the material in the textbook.

Description: Precalculus topics include a review of the elementary functions, advanced properties of functions (including special attention to polynomial and rational functions), polar coordinates, complex numbers, and introductions to the derivative and integral. Manipulation of complex rational expressions, not emphasized in previous courses, is discussed here. Mathematical thinking, including specific attention to formal logic and proof and comparing structures, is a unifying theme employed throughout the course. This course will be of greater scope and depth and move at a faster pace than the 3000 level course of the same name.

Expectations: Students are expected to complete classroom and daily homework assignments and to maintain a B average on tests and quizzes. Students who plan to take 4412 AP Calculus must earn a final grade of B or better to qualify.

4412 AP CALCULUS (AB) Grades 11-12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Precalculus, fulfillment of the honors requirement, and teacher recommendation.

Objectives: 1. To develop an understanding of first semester college calculus; 2. to provide experience with the methods and applications of first semester calculus.

Description: This course emphasizes a multi-representational approach to first semester college calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are also important. 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, and the Fundamental Theorem of Calculus. The course will closely follow the AB syllabus put forth by the College Board. Additional topics may be added as time permits.

Expectations: Students are expected to complete a summer packet prior to taking AP Calculus. Students are also expected to complete classroom and daily homework assignments, participate actively in class, and thoroughly prepare for rigorous quizzes and tests. Students are required to take the AP Calculus exam given in May.

4415 AP CALCULUS (BC) Grades 11-12 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Precalculus, fulfillment of the honors requirement, and teacher recommendation.

Objectives: 1. To develop an understanding of first and second semester college calculus; 2. To provide experience with the methods and applications of first and second semester calculus.

Description: This course emphasizes a multi-representational approach to first and second semester college calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are also important. 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 infinite sequences & series. The course will closely follow the BC syllabus put forth by the College Board. Additional topics may be added as time permits. The pace and rigor of AP Calculus (BC) will be substantially greater than that of its (AB) counterpart.

Expectations: Students are expected to complete a summer packet prior to taking AP Calculus. Students are also expected to complete classroom and daily homework assignments, participate actively in class, and thoroughly prepare for rigorous quizzes and tests. Students are required to take the AP Calculus exam given in May.

8913 CHS CALCULUS (This is a College in High School course. See page vi for possible course costs.) Grades 11 - 12 1.5 Credits or 4 College Credits/3 Trimesters

Prerequisite: Successful completion of Precalculus and Discrete Math

Objectives: 1. To develop an understanding of calculus; 2. to provide experience with the methods and applications of calculus.

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.

Expectations: Students are expected to complete classroom and daily assignments and to earn passing grades on tests and quizzes. Students must also meet the requirements as outlined by the College in High School program.

8405 STATISTICS Grades 10 - 12 1.5 Credit/3 Trimesters

Prerequisite: Successful completion of Algebra II or Compute Algebra II

Objectives: 1. To become proficient in determining mathematical and experimental probabilities; 2. to become proficient with descriptive statistics; 3. to develop skills regarding data collection; 4 to acquaint students with appropriate statistical technology tools.

Description: The main focus of the course will be 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, hypothesis testing, and confidence intervals. Students will use multiple representations to present data including written descriptions, numerical statistics, formulas, and graphs.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on assessments. Students will be expected to work in groups cooperatively and collaboratively. They will be expected to present work to the teacher, small groups, and the whole class.

4413 AP STATISTICS QVO Grades 11 - 12 1.5 Credits/2 Semesters (Full Year)

Prerequisite: Grade of B in Honors Advanced Algebra or Math Analysis

Standards: The College Board topic outline for AP Statistics

Description: AP Statistics give students hands-on experience collecting, analyzing, graphing and interpreting real-world data. They'll learn to effectively design and analyze research studies by reviewing and evaluating real research examples taken from daily life. The next time they hear the results form another poll or study, they'll know whether the results are valid. As the art of drawing conclusions from imperfect data and the science of real world uncertainties, statistics plays an important role in many fields. The equivalent of an introductory college-level course, AP Statistics prepares students for the AP Exam and for further study in science, sociology, medicine, engineering, political science, geography and business.

Music

Music, an academic; music, an art. Music incorporates aspects of mathematics, physics, physical education, history, and world languages. Beyond these, though, music is an art. It allows for aesthetic growth for all who perform and listen.

It is our aim to expose all students to a wide variety of musical styles and periods. For the performing ensembles we want the students to experience the coordination of this music through marching and concert performances 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 the History of Popular Music, Music Theory*, Jazz Ensemble, and piano courses.

*Prerequisite to participate in the course.

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



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

Objectives: To provide the opportunity for each student to: 1. participate in a music program that reflects the continuing advancements in music/education; 2. sequentially develop the comprehensive cognitive and physical skills requisite for refining ensemble technique and tone in performing; 3. sequentially develop comprehensive music literacy by refining music reading, listening, and analysis; 4. value music; 5. sequentially develop the affective concepts requisite for refining aesthetic perception and response; 6. foster creativity; 7. provide exposure to our cultural heritage reflecting music history and style in performing; 8. nurture the student from childhood through transition into young adulthood by developing his/her sense of self-worth, sense of community, role in understanding and contributing to our culture and aesthetic sensitivity; 9. promote a lifetime association with music as a professional, as an avocation, and/or a discriminating listener/consumer.

Description: Class meets five times per week. 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 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.

Expectations: This course will include both components of marching and concert band. Extra rehearsals and performances are a vital and integral part of this course and are part of the course requirements and grading policy.

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

Objectives: To provide the opportunity for each student to: 1. participate in a music program that reflects the continuing advancements in music/education; 2. sequentially develop the comprehensive cognitive and physical skills requisite for refining ensemble technique and tone in performing; 3. sequentially develop comprehensive music literacy by refining music reading, listening, and analysis; 4. value music; 5. sequentially develop the affective concepts requisite for refining aesthetic perception and response; 6. foster creativity; 7. provide exposure to our cultural heritage reflecting music history and style in performing; 8. nurture the student from childhood into young adulthood by developing his/her sense of self-worth, sense of community, role in understanding and contributing to our culture and aesthetic sensitivity; 9. promote a lifetime association with music as a professional, as an avocation, and/or a discriminating listener/consumer.

Description: Class meets five times per week. 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 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.

Expectations: Students join all performing groups with the understanding that performances outside of the regular school day constitute a part of their grade/evaluation. Extra rehearsals and performances are a vital and integral part of this course and are part of the course requirements and grading policy.

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

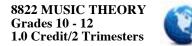


Prerequisite: Recommendation of instructor and/or satisfactory audition with the director

Objectives: To provide the opportunity for each student to: 1. participate in a music program that reflects the continuing advancements in music/education; 2. sequentially develop the comprehensive cognitive and physical skills requisite for refining ensemble technique and tone performing; 3. sequentially develop comprehensive music literacy by refining music reading, listening, and analysis; 4. value music; 5. sequentially develop the affective concepts requisite for refining aesthetic perception and response; 6. foster creativity; 7. be exposed to our cultural heritage reflecting music history and style in performing; 8. be nurtured the student from childhood through transition into young adulthood by developing his/her sense of self-worth, sense of community, role in understanding and contributing to our culture, and aesthetic sensitivity; 9. develop a lifetime association with music as a professional, as an avocation, and/or a discriminating listener/consumer.

Description: Class meets five times per week. 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.

Expectations: Students join all performing groups with the understanding that performances outside of the regular school day constitute a part of their grade/evaluation. It is expected that students will take this class all three terms. Special considerations for two terms only need to be approved by the Choral Director.



Prerequisite: Students must be a member of band, orchestra, or chorus and have their director's recommendation or through audition and/or testing show musical competency to participate in the course.

Objectives: To provide the opportunity for musically talented/advanced students to: 1. participate in one of the most challenging aspects of the music program; 2. sequentially develop comprehensive music literacy by refining music reading, writing, listening, and analysis; 3. value music; 4. foster creativity; 5. promote a lifetime association with music as a profession, as an avocation, and/or a discriminating listener/consumer; 6. participate in a music program that reflects the continuing advancements in music/education including technology.

Description: : This course is offered five times per week for one term as an elective to the advanced 10th, 11th, and 12th grade student who has achieved an excellent background in either instrumental or vocal music. This course is designed to encompass a wide range of musical study with emphasis on advanced theory, form, analysis, ear training, rhythmic, melodic, and harmonic dictation, and advanced melody writing, beginning composition skills, possible use of synthesizers and other MIDI equipment.

Expectations: Students will be expected to complete assignments. There will be periodic quizzes and tests.



Prerequisite: None

Objectives: 1. To provide instruction in beginning, intermediate, and advanced piano skills; 2. to provide introductory experiences in music technology.

Description: This class will meet five times per week for one term. During each term the students enrolled will be individually evaluated and provided with instructional sequences that advance their individual needs. Individual practice as well as computer assisted instruction will be utilized.

Expectations: Students will advance through instruction at their level and will be evaluated by their daily work and progress on the keyboards. *NOTE: Students may enroll in this class more than once during the school year.*

8795 STAGE LIGHTING AND SOUND Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: Recommendation of instructor

Objectives: To provide the opportunity for each student to learn about:

- 1. set-up, and design of theatrical lighting and sound equipment.
- 2. operation of Lighting and Sound board.
- 3. Maintenance of theatrical lighting and sound instruments.

Description: Class meets five times per week. Students will be given hands-on experience in learning to operate the sound and lighting systems. Members of the class will work with the acting class to design and operate the technical aspects of class one-act plays.

Expectations: Students will be expected to be available to operate sound and lights for various school functions to include: Evening music concerts, meetings and assemblies in the auditorium and the Spring musical.

Note: Students who accumulate 60 hours of after- hours service to the auditorium will be granted an additional .5 credit.

4820 AP MUSIC THEORY Grades 11-12 1.5 Credits/3 Trimesters



Description: Advanced Placement Music Theory is designed to develop the student's ability to recognize, understand, and describe the basic materials and processes of music that is heard or presented in a score. The course will further instill mastery of the basic elements of music, including intervals, scales, chords, rhythmic patterns, and the terms used to describe these elements as they relate to the system of major-minor tonality. Students will explore basic harmonization techniques and more sophisticated analytical techniques. Sight-singing and piano skills will also be addressed. Students should possess the ability to read and play musical notation and be proficient as a vocalist or instrumentalist.

Honors Personal Project

Students are required by Quaker Valley School Board Policy and the Pennsylvania Department of Education to complete a personal project before graduation. The project is to be completed in 10th grade during Trimesters 1 and 2. This one credit course is graded utilizing the Quaker Valley High School grading scale. Students must receive a passing grade in order to meet the Quaker Valley School Board Policy graduation requirements. The successful completion of the International Baccalaureate personal project will fulfill the graduation project requirement.

5008 HONORS PERSONAL PROJECT Grade 10 1 Credit/2 Trimesters

Prerequisites: None

Objectives: To fulfill the Pennsylvania Department of Education and the Quaker Valley School District graduation requirements.

Description: The Honors Personal Project is a significant body of work produced over an extended period of time. It is a product of the student's own initiative and provides an excellent opportunity for students to produce a truly creative piece of work in an area of personal interest, while demonstrating skill in time management and in the problem-solving process. Students must determine their topics, seek approval for their plans and carry out the task, event, or production. The project requires contextual research, a thorough analysis of the process followed and an evaluation of the result in a formal paper, which documents the learning journey. The Personal Projects are not scheduled classes; they are completed in addition to a student's coursework.

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 wellness.

8005 HEALTH & WELLNESS I Grades 9 or 10 .5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To help students develop the knowledge and skills needed to make healthy choices to improve their quality of life; 2. to understand healthy personality development and healthy relationships; 3. to develop knowledge, understanding, and avoidance of risky behaviors that lead to violence, substance abuse, teenage pregnancy and sexually transmitted diseases.

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 health and wellness is stressed. Students learn that many health-related problems are preventable by making healthy choices throughout life.

Expectations: All students will be expected to participate in classroom activities and be assessed by performance on tests, quizzes, assignments, and research projects. Students will be expected to attain a level of wellness understanding that meets the course objectives. Students who fail to pass the course will be required to repeat it.

8006 HEALTH & WELLNESS II Grades 11 or 12 .5 Credit/1 Trimester

Prerequisite: Health and Wellness I

Objectives: 1. To help students utilize the knowledge and skills to make healthy choices that improve their quality of life; 2. to help students apply health knowledge to their own lives; 3. to recognize abusive relationships, sexually harassing behaviors, and dating violence; 4. to develop knowledge, understanding, and avoidance of risky behaviors that lead to substance abuse, suicide, and HIV/AIDS transmissions.

Description: This course is an extension of the Health and Wellness I course with the addition of several new areas of health-related study relevant to adolescents. Individual responsibility for health and wellness continues to be emphasized. In this course students focus on applying knowledge to personal and social health issues including sexual harassment, date rape, HIV/AIDS, suicide prevention, stress management, and the effects of chemical addictions on the family. In addition, students will have the opportunity to become certified in adult CPR.

Expectations: All students will be expected to participate in classroom activities and be assessed by performance on in-class assignments, tests, quizzes, and research projects. Students will be expected to attain a level of wellness understanding that meets the course objectives. Students who fail to pass the course will be required to repeat it.

80010 PHYSICAL EDUCATION & FITNESS Grades 9 - 12 .5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To demonstrate individual knowledge of and development in health-related physical fitness; 2. to develop and refine skills in a wide variety of physical activities; 3. to demonstrate leadership skills in small group and large group activities; 4. to demonstrate safety, sportsmanship, fair play, cooperation, and respect for others during physical activity; 5. to demonstrate knowledge of basic skills, principles, rules and strategies related to a variety of physical activities and movement forms; 6. to demonstrate knowledge of how to learn new skills.

Description: The physical education program at this level builds on the elementary and middle school programs with more emphasis on the development of advanced techniques, strategies, and greater competence in performing a variety of physical activities. Cooperation, sportsmanship, safety, and fair play are stressed throughout the program. The program includes a variety of team, large group, small group, dual and individual physical activities. In addition, health-related physical fitness is stressed which focuses on assessing, analyzing, and improving cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

Expectations: All students are expected to dress appropriately for safe participation in physical activity and participate in all class activities. Students will be expected to perform physical skills demonstrating proper technique at a level that is commensurate with their abilities. Students will demonstrate their level of knowledge, attitudes, and skill through a variety of written and performance-based assessments. Students will be expected to work individually, in pairs and in small and large groups throughout the course. Students will demonstrate their knowledge and application of principles relating to improving health related physical fitness. Students who fail to pass the course will be required to repeat it.

Pre-Engineering Technology

Pre-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.

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

8600 EXPLORING TECHNOLOGY Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: None

Objectives: 1. To apply problem solving and creative thinking through activities and experiences; 2. to demonstrate a general understanding of the five areas of technology: manufacturing, construction, communications, transportation, and bio-related technologies: 3. to integrate technological concepts with other school subjects, such as math, science, English, and social studies: 4. to encourage students to produce high quality work, individually and as part of cooperative research and development teams; 5. to understand the safe use of tools, machines, and processes of technology.

Description: Exploring Technology is a foundation course in technology for all students in grades 9 through 12. This exciting, handson course provides an overview of the systems areas of bio-related, communication, construction, manufacturing and transportation technology. Students, working alone or in groups, 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. Exploring Technology is a prerequisite for many of the other technology courses offered at Quaker Valley High School.

Expectations: Students will complete all assignments and participate in class project activities.

8602 ROBOTICS Grades 9 - 12 .5 Credit/1 Trimester



Prerequisite: Exploring Technology

Objectives: 1. Identify, formulate solutions for, and solve engineering technology problems using engineering design processes 2. Apply knowledge of mathematics, science and technology to solve robotic engineering technology problems. 3. Function on multi-disciplinary teams 4. Communicate effectively using various forms of communications. 5. Recognize the need for, and demonstrate the ability to, engage in life-long learning 6. Describe various methods used to manage and schedule projects 7. Participate in and/or conduct design reviews 8. Collect, analyze and interpret data

Description: We can't predict what the hot new technology will be in five years, but we can confidently predict that it will include computer programming, electronic embedded systems, engineering design, and mathematics. If you believe these things, then you need to know that robotics has the ability to teach these concepts. At the same time, robotics teaches 21st century skill sets like time management, resource allocation, teamwork, problem solving, and communications.

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. The Fundamentals Unit is divided into six Lesson Sets: Safety, Project Management, Assessment Rubrics, Introduction to Programming, Natural Language and VEX Hardware. 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: Exploring Technology

Objectives: 1. To demonstrate an understanding of the operation of various transportation systems; 2. to develop, produce, test, and evaluate various transportation vehicles; 3. to investigate the various subsystems of transportation; 4. to investigate the history and future of transportation; 5. to analyze various transportation systems for efficiency; 6. to investigate the social, cultural, economic, and environmental impacts of transportation systems; 7. to work cooperatively as a group to problem solve transportation challenges; 8. to integrate various math and science concepts into a design challenge.

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.

Expectations: Students will complete all assignments and participate in class project activities.

8604 COMPUTER-AIDED DRAFTING AND DESIGN (CADD) Grades 10 - 12 .5 Credit/1 Trimesters

Prerequisite: Exploring Technology

Objectives: 1. To demonstrate an understanding of the operation of computer-aided drafting and design software; 2. to develop problem solving skills that are applicable to life and work; 3. to communicate design ideas effectively; 4. to apply math and science concepts to designing; 5. to demonstrate professional responsibility within the classroom.

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 individually and in groups 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.

Expectations: Students will complete all assignments and participate in class project activities.

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

Prerequisite: Exploring Technology

Objectives: 1. To identify various methods, materials, and structures used in construction; 2. to develop, construct, use, and evaluate various structures and prototypes; 3. to produce structures using tools, materials, and production processes safely and efficiently; 4. to communicate designs using written specifications, two- and three-dimensional drawings and models; 5. to work cooperatively to problem solve design challenges; 6. to use science and mathematics to solve problems related to the design performance and analysis of structures; 7. to identify problems related to the design performance and analysis of structures; 8. to identify career opportunities in construction-related fields and their required educational preparation.

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.*

Expectations: Students will complete all assignments and participate in class project activities.

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, and C) an environment, which promotes both freedom and growth as an individual in an ever-changing society.

Requirements

All students must fulfill the graduation requirements by completing three full years of science/technology.

Placement

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

Admission

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

Note: Tech Ed courses may also be used to fulfill part of the science/technology requirement.

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.

Objectives: 1. to examine living systems and basic environmental components; 2. to identify components of ecosystems and their interconnectedness; 3. to utilize the scientific method and apply scientific thinking to problem-solving; 4. to explore basic biological concepts and content; 5. to analyze common themes between the fields of environmental science, ecology, and biology.

Description: Environmental Biology is an entry-level science course that blends the fields of environmental science, ecology, and biology. Areas of emphasis concentrate on scientific thinking with related tools and technologies, ecological levels of organization in the biosphere, and interactions and relationships in an ecosystem. 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.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments, including those that require use of their laptop computer. They are expected to demonstrate and implement scientific and technological systems.

3307 PRINCIPLES OF BIOLOGY Grade 10 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 is the science of living things. This entry-level biology course emphasizes the following areas: plant and animal physiology, evolution biochemistry, cellular organization, DNA and genetics. Lab work will require students to display proficiency in the application of learning standards. Students taking this course will be expected to have already completed an environmentally-based life science course.

Objectives: 1. To examine living systems and their inter-relationship with the environment; 2. to identify structural characteristics of plants, animals, and ecosystems; 3. to describe functions of living systems; 4. to utilize laboratory methods and techniques to study biology; 5. to describe the cellular and molecular organization of life.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments. They are expected to construct models to demonstrate and implement scientific and technological systems.





Prerequisite: Successful completion of chemistry and recommendation of science teacher

Objectives: 1. To examine living systems and their inter-relationship with the environment; 2. to identify structural characteristics of plants, animals, and ecosystems; 3. to describe functions of living systems; 4. to utilize laboratory methods and techniques to study biology; 5. to describe the cellular and molecular organization of life.

Description: Biology is the science of living things. This course, teaches the process, concepts, and excitement of biology and its importance in everyday life. Biochemistry, molecular and cellular organization, genetics, environmental studies and ecology, evolution, anatomy, and physiology of specific organisms are developed. Studies in all areas emphasizes the relationship between structure and function. Environmental issues, concepts, and human impact will be investigated. Laboratory experiences contribute significantly to the qualitative investigations.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments. They are expected to construct models to demonstrate and implement scientific and technological systems.

4309 HONORS BIOLOGY Grade 9 1.5 Credits/3 Trimesters



Prerequisite: Recommendation of the science teacher and the fulfillment of Chemistry 4310 or the fulfillment of Chemistry 3311

Objectives: 1. To examine the interdependency relationships between the biotic and abiotic; 2. to compare and contrast physiological processes in organisms; 3. to describe biochemical activities in organisms; 4. to utilize laboratory methods and techniques in the study of biology.

Description: Biology is the study of living things. This course is designed for the college preparatory student who has achieved at a higher level in previous science courses. Areas of emphasis are a concentration on the structures and functions that organisms generally share with differences between organisms, the reasons why they are different, and the effects of these variations have upon other organisms. Students demonstrate proficiency in the use of tools, processes, and resources of science and technology.

Expectations: Students will be required to complete assignments and participate in class and lab work. Independent and higher learning skills are required to construct models to demonstrate and implement scientific and technological systems.

3311 CHEMISTRY Grades 9 and 10 1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Algebra I and science teacher recommendation

Objectives: 1. To acquaint students with the structure and composition of materials as they undergo changes in their chemical makeup; 2. to become familiar with the laws and theories of chemistry; 3. to collect and interpret data in the laboratory as well as learning basic lab techniques.

Description: The students will have a structured look at atomic theory and how it leads to chemical bonding. The course develops problem solving concepts of stoichiometry, thermochemistry, and kinetic theory as it applies to the physical states of matter. Students will gain an insight into different types of chemical reactions, states of matter, acid/base theory, equilibrium and electrochemistry.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments. They are expected to use mathematical concepts as they pertain to chemical theory and applications in the laboratory experiments.

3306 INTEGRATED PHYSICAL SCIENCE Grade 10-12 1 Credit/2 Trimesters

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

Objectives: 1. To acquaint students with the laws and theories of chemistry and physics; 2. to acquire skill and competence in laboratory techniques; 3. to explore the applications of chemistry and physics.

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 emphasize the connections between chemistry and physics, to help students think analytically like scientists through scientific inquiry in a hands-on setting, and to provide a practical explanation of scientific phenomenon as it relates to their everyday lives, consequently shaping students' future career choices.

Expectations: Students are expected to complete homework assignments and participate in class and laboratory activities. They will build on scientific concepts and develop skill in laboratory procedures and safety.

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

Prerequisite: Successful completion of a chemistry course, Algebra I, and Geometry.

Objectives: To provide an understanding of physics in everyday life with concepts and insightful explanations for the non-science oriented students.

Description: Mechanics, sound, light, and electricity will be emphasized.

Expectations: Daily reading and review questions, chapter homework, and lab reports are expected.

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.

Objectives: 1. To prepare students to exist in an increasingly technological society; 2. to develop the students' analytical, problem solving, and laboratory skills; 3. to integrate math and science; 4. integrate computers and science within the context of the laboratory environment.

Description: Physics skills, mechanics, wave motion, light and static electricity are emphasized. Modern (atomic, nuclear, particle) physics may be introduced.

Expectations: Daily homework, periodic chapter homework, and lab reports are expected.

3315 HONORS RESEARCH SCIENCE Grades 11 - 12 1 Credit/2 Trimesters



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

Objectives: 1. To describe the inter-relationship which exists between research, technology, and society; 2. to use primary resources to investigate research topics (e.g. periodicals, journals, Internet, and reports); 3. to distinguish between basic science and research technology; 4. to experience the dynamics of research and how it will impact on their lives in the future.

Description: This independent study course is designed for the junior or 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. The student involvement is through independent experimentation developed through both field and laboratory experiences. Research topics can be drawn from a variety of disciplines including botany, zoology, physiology, medicine, bio-chemistry, psychology, and environmental sciences.

Expectations: Students will design and implement a research plan for the resolution of a scientific issue. 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 will require an after-school commitment.

3318 ETHICAL ISSUES IN SCIENCE Grades 11 - 12 .5 Credit/1 Trimester



Prerequisite: Successful completion of biology and chemistry courses.

Objectives: 1. To discuss, investigate, and evaluate the major ethical issues associated with the sciences, technology, and the medical professions; 2. to establish the role science plays in making ethical decisions; 3. to differentiate between ethics and science; 4. to apply logic and scientific evidence to support viewpoints of controversial issues (ex. euthanasia, abortion, environmental concerns).

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.

Expectations: 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 or the fulfillment of the honors requirement. Students should have completed or be enrolled in Algebra II or FST.

Objectives:1. To acquaint students with scientific method of the ideals in chemistry; 2. to develop necessary skills for students to handle and manipulate materials and equipment in the collection of data; 3. to develop students' attitudes and curiosity with chemical phenomena.

Description: Chemical topics, which are developed, include work with chemical reactions, predictions and analysis related to unknown quantities, math relations, and molecular compositions of various chemical states. Mathematical interpretation will be emphasized through each chemical development. Time will be spent within the lab collecting and interpreting data as it applies to the lecture theory. Stoichiometric relations will be developed to predict products and product yield.

Expectations: Students will be required to relate lecture material to laboratory skills necessary to calculate results from the collection of data. Students will be called upon to demonstrate their writing and speaking knowledge of chemical values and reactions. Students will be required to prepare a topic on a specific field of chemistry.

4311 AP BIOLOGY Grades 11 - 12 1.5 Credits/3 Trimesters

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

Objectives: To develop: 1. cellular and molecular concepts and processes; 2. technological applications of biological principles; 3. interaction of biology, technology, and society; 4. understanding and use of biological methodology; 5. investigations of evolution as a unifying theme of biology; 6. relationship between structure and function in plant and animal systems.

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. The course syllabus is adapted from Cornell University's introductory biology program. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing world of biology. The Advanced Placement Biology course is designed to be taken by students after the successful completion of a first course in high school biology and chemistry. Laboratory experience will require after-school or before-school sessions.

Expectations: Extensive homework and laboratory work are required. Students are expected to perform extensive readings in biology. Students will be required to take the AP Biology exam.

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.

Objectives: To develop the necessary skills for higher level thinking to solve mathematical problems in theory as well as in the lab experiments.

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.

Expectations: Students are expected to complete daily assignments as well as the set-up of data collection and results in lab experiments. Students will be required to take the AP Chemistry exam.

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

Prerequisite: Successful completion of Biology and Honors Chemistry and enrolled in or completed FST or having the recommendation of their teacher.

Objectives: 1. To prepare the student entering a physical science field 2. to extend the students' problem solving skills; 3. to improve the students' lab skills; 4. to integrate computers with science within the laboratory environment.

Description: Physics 1 is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits.

Expectations: Extensive homework and reading assignments, occasional lab reports. Students will be required to take the AP Physics exam.

5303hv AP ENVIRONMENTAL SCIENCE Grade 12 1.5 Credits/3 Terms

Prerequisite: Academic Biology or Honors Biology, Academic Chemistry or Honors Chemistry, Algebra I, and Algebra 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.

Objectives: The goal of this interdisciplinary course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems (both natural and human-made), to evaluate the risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

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.

Expectations: 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 videos. All students enrolled in the course will be required to take the AP Environmental Science exam.

Social Studies

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

Requirements

•General Requirements

All students must fulfill the graduation requirement of four years in history/social studies. All students must be enrolled in required history/social studies in at least two trimesters during each of their high school years. Students must successfully complete one grade level course before moving to the next level.

• Grade 9 Requirement

Freshmen students must earn a credit in two trimesters of Global Civics.

Grade 10 Requirement

Sophomore students must earn a credit in two trimesters of World History (3200, 4210) or 1.5 credits in three trimesters of AP World History (4209).

Grade 11 Requirement

Junior students must earn a credit in two trimesters of U.S. History (3211) or 1.5 credits in three trimesters of AP US History (4212).

• Grade 12 Requirement

Senior students must earn .5 credit in one trimester of Politics or International Relations Theory and .5 credit in one trimester of Economics or 1.5 credits in three trimesters of AP European History.

•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
 - a reading and analysis completed by the student in an essay format

3208 GLOBAL CIVICS Grade 9 1 Credit/2 Trimesters



Prerequisite: None

Objectives: 1. To develop global citizens who have a firm understanding of the United States government and its role globally; 2. To analyze and evaluate how human rights originated and are protected in the United States and globally; 3. To understand the causes of conflict and the strategies used by governments to resolve them; 4. To understand how issues impact local and global society; 5. To develop the skills of critical thinking, problem solving, communication and collaboration.

Description: The course will provide students with skills and competencies that lead to the development of global civic responsibility. It is an active and applied approach to civics education. Students will develop intellectual skills that help citizens identify, describe, explain, and analyze information and will enable them to evaluate, take, and defend positions on global issues. Students will develop participatory skills that enable citizens to monitor and influence civic life by working with others, expressing ideas, and managing conflict.

Expectations: Students will complete assigned readings, course assignments, projects, tests and quizzes. Students will actively participate in individual and group activities for the course using technology.



Prerequisite: Successful completion of American Civics

Objectives: 1. To provide students with a solid historical background and the critical thinking skills necessary in understanding events which have shaped today's world; 2. Students will examine social, political, intellectual, and economic philosophies while gaining a greater appreciation for world diversity.

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.

Expectations: Students will be expected to actively participate in group activities, complete course assignments, exams, quizzes, and projects.

4210 HONORS WORLD HISTORY Grade 10 1 Credit/2 Trimesters



Prerequisite: Successful completion of American Civics and fulfillment of the honors requirement

Objectives: 1. To provide students with a solid historical background and the critical thinking skills necessary in understanding events which have shaped today's world; 2. students will examine social, political, intellectual, and economic philosophies while gaining a greater appreciation for world diversity.

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.

Expectations: Students will be expected to actively participate in group activities, complete course writing assignments, projects, exams, and quizzes. The students will successfully complete a project involving written research and a creative/oral presentation. The students will read books from a selected bibliography in addition to text; supplemental readings will be offered. Exams and assignments will be largely essay in nature and will include an analysis of historical writings.

4209 AP WORLD HISTORY Grade 10 1.5 Credits/3 Trimesters



Prerequisite: An A average in Global Civics and teacher recommendation. As this is a writing intensive course, an Honors English background is highly recommended. This is a college level course.

Objectives: 1. To prepare students to successfully take the AP exam; 2. To adequately prepare students for a college level World History course.

Description: This world history survey course covers world history from approximately 8000 BCE through the modern era. The course gives students a greater understanding of the evolution of global societies in terms of political, religious, social, technological and economic development and emphasizes the interaction of these forces as well as the interaction of societies. It emphasizes relevant factual knowledge utilized in conjunction with analysis of major historical continuities and changes over time. Students analyze a wide variety of historical sources, including historiography arguments as well as primary and secondary sources.

Expectations: This is a writing intensive course. Students are expected to complete assigned summer work, including readings and essays, prior to the beginning of the course. In addition, they will fulfill requirements in the areas of readings, mock trials, simulations, writings, and testing. Students may expect to cover roughly one content chapter per week. Frequent writing assignments, including both analytical and creative writings, will be assigned and students are expected to write at a college level. **Students are required to take the AP World History exam.**

3211 U.S. HISTORY Grade 11 1.0 Credit/2 Trimesters

Prerequisite: Successful completion of World History 3210

Objectives: 1. To extend students' awareness of the political, social, economic, and diplomatic history of the United States; 2. to develop an awareness of the relationship between past events and contemporary society.

Description: The major focus of the course is from the Spanish-American War to the present. The year is devoted to the 20th century. Students investigate the emergence of the United States as a world power, the various political developments faced by our democracy, the economic problems faced by changing conditions and the various social movements which have reshaped the basic fabric of American society.

Expectations: The students will develop a basic knowledge of America's past. Even more importantly, the students will analyze and interpret why historical decisions occurred and how they influence contemporary society.

4211 HONORS U.S. HISTORY Grade 11 1.0 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.

Objectives: 1. To provide an intensive analysis of the causes, significance, and interrelation of historical events and culture. 2. To develop skills to interpret, contextualize, relate and think critically about historical writings and mass media at an honors level.

Description: The 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.

Expectations: Frequent writing assignments, including both analytical and creative writings, will be assigned; students are expected to write at an honors level. Students will be required to read and analyze a variety of primary source documents each week outside of class. In addition they will fulfill requirements in the areas of short journal entries, simulations, creative projects, and testing.

4212 AP U.S. 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 highly recommended. This is a college level course.

Objectives: 1. To prepare students to successfully take the AP exam; 2. to adequately prepare students for a college level U.S. History course.

Description: The course gives students a thorough grounding of U.S. history from the early colonial period to the present as well as a framework for examining the context and significance of this history. The students learn to read historical materials analytically and critically, weighing historical evidence and interpretations and arriving at conclusions on the basis of informed judgment.

Expectations: This is a writing intensive course. Students are expected to complete assigned summer work, including readings and essays, prior to the beginning of the course. Students will read over one chapter per week as well as a wide variety of journal readings. In addition they will fulfill requirements in the areas of readings, simulations, writings, and testing. Frequent writing assignments, including both analytical and creative writings, will be assigned; students are expected to write at a college level. **Students are required to take the AP U.S. History exam.**



Prerequisite: Successful completion of U.S. History 3211

Objectives: 1. To examine the role of the U.S. in the global economy; 2. to examine basic economic concepts and functions of the American system through the roles of the individual, businesses, and the government; 3. to develop personal responsibility for sound financial management and decision making. 4. to prepare students to be responsible, enterprising individuals who become entrepreneurial thinkers; 5. to build career competencies and skills desired by future employers.

Description: Economics introduces students to basic economics concepts; personal financial management and decision-making and the role of the United States in the international economy. In addition, students will have an opportunity to create and implement a concept, marketing strategy, and organizational design for a student-run business. They will learn the proper use of equipment necessary for the operation of the business. They will learn the enterprising skills related to creativity, initiative, problem solving, decision- making and customer service.

Expectations: Students will complete assigned readings from current publications, assignments, tests, and projects. Students will actively participate in all class and business activities. Students will be responsible for the daily operation, product selection, inventory, ordering and finances of the business. All profits from the business are used to fund the service projects selected by the class.

8210 INTERNATIONAL RELATIONS THEORIES Grade 12 .5 Credit/1 Trimester



Prerequisite: Completion of US History or AP US History

Objectives: 1. To become familiar with the structure and system of International Relations; 2. to gain an awareness of the major theories analyzing International Relations; 3. to apply these theories to historical and current events in International Relations; 4. to gain an awareness of the process of Globalization and the various political attitudes toward this process.

Description: The students will examine the field of International Relations in six units and two learning activities. The units will consist of major factors that structure International Relations in a unit each on the four major theories and a unit on Globalization. The two learning activities will be a diplomacy simulation game and a simulation about the Cuban Missile Crisis based on the movie, "Thirteen Days."

Expectations: The students will need to do the nightly reading assignments to gain a basic knowledge of the difficult concepts that are covered in class. The students will need to be willing to engage in critical discussion of the various concepts and theories.



Prerequisite: Successful completion of U.S. History 3211

Objectives: 1. To develop an awareness of and appreciation of our rights as U.S. citizens; 2. to develop a positive attitude about individual participation in the democratic process; 3. to analyze current issues from an international and geographical perspective.

Description: Students will explore political ideologies; the formation and functions of U.S. political parties and special interest groups; elections and their role as voters; jury service and their role as active citizens; and U.S. domestic and foreign policy. Historical and current interpretations of their rights are analyzed through current case studies and court decisions.

While solidifying their knowledge of geographical locations, students will use specific case studies of hot spots in the world to analyze concepts that influence international affairs.

Expectations: Students will complete assigned readings from current publications, assignments, tests, and quizzes. Students will actively participate in activities and simulations. Students will become more aware of where they are on the political spectrum. Students will become more knowledgeable about current issues in order to become better informed voters.

4213 AP EUROPEAN HISTORY Grade 11 or 12 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of World History 4210 and/or U.S. History 4211 and fulfillment of the honors requirement. This is a college level course.

Objectives: 1. To develop scholarship through their involvement with the collegiate skills of organizing, preparation, research, conceptualizing, and writing; 2. to analyze the political, diplomatic, social, economic, military, and intellectual factors that have shaped Europe.

Description: The course will begin with an examination of conditions that have occurred in Europe beginning in the 10th century and concluding with present day conditions. Special emphasis is placed on the development of national cultures, the struggles and conflicts of emerging nations, the evolution of philosophical and ideological theories, the development of social groups, the influence of two world wars and the changing government structures.

Expectations: A thorough examination of the textbook, as well as numerous outside readings are required. Detailed quizzes and major exams are a regular occurrence. A mid-term exam and a research paper are also part of the course. **Students are required to take the AP European History exam.**

8211 INTRODUCTION TO PSYCHOLOGY Grades 9 – 12 .5 Credit/1 Trimester

Prerequisite: None

Objectives: To gain a thorough understanding of psychological science from its' beginnings to present day. 2. To develop an understanding of the approaches and perspectives by which one can approach psychology. 3. To become familiar with the branches of psychology and their applications. 4. To apply knowledge gained in class to real-life situations.

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 explore core psychological concepts such as, biological bases of behavior, motivation, life span development, personality, cognition, learning, memory, psychological disorders/treatments, and social and cultural dimensions of behavior.

Expectations: Students are expected to participate regularly in class, complete all lab assignments, applications papers, homework assignments, and also to prepare diligently for all quizzes and exams.

4350 AP PSYCHOLOGY Grades 11-12 1 Credit/2 Trimesters

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

Objectives: 1.) To gain a thorough understanding of psychological science from its' beginnings to present day. 2.) To develop an understanding of the approaches and perspectives by which one can approach psychology. 3.) To become familiar with the branches of psychology and their applications. 4.) To apply knowledge gained in class to real-life situations.

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.

Expectations: Extensive homework, reading, and writing are required. Students are required to take the AP Psychology exam.

8220 CRIMINAL AND CIVIL LAW Grades 9-12 .5 Credit/1 Trimester



Prerequisite: None

Objectives: 1.) To develop an understanding of the rights of citizens, with an emphasis on the rights of minors. 2.) To develop an understand of criminal and civil court procedures. 3.) To analyze how Pennsylvania school law impacts students. 4.) To compare and contrast legal systems throughout the world.

Description: This course will provide an overview of the criminal and civil legal systems in the United States. Topics of study include the criminal and civil trial procedure, an examination of common criminal charges and civil litigations, and a study of Pennsylvania school law. This pre-law focused course will provide an overview of both the Federal and State legal systems. While the focus of the course will be American law, students will also compare and contrast the American legal system with other systems of law throughout the world.

Expectations: Students are required to participate in class, complete all homework assignments, readings, projects, and prepare thoroughly for all exams.

8860 MODERN HISTORY THROUGH POP CULTURE Grades 11-12 .5 Credit/1 Trimester

Prerequisite: Completion of or simultaneous enrollment in AP US History or US History

Objectives: To gain a thorough understanding of modern United States history through the vehicle of pop culture.

Description: Modern History through Pop Culture 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*.

Expectations: Students are expected to attend and participate regularly in class, use prior knowledge of US history to make connections to issues studied in the course, and complete all written assignments.

4214 AP US GOVERNMENT AND POLITICS QVO Grades 11 - 12 .75 Credit/1 Semester (Half of Year)

Prerequisite: Successful completion of Honors U.S. History

Standards: The College Board topic outline for AP U.S. Government and Politics

Description: AP U.S. Government and Politics studies the structure and operations of the U.S. government and the behavior of the electorate and politicians. Students will gain the analytic perspective necessary to critically evaluate political data, hypotheses, concepts, opinions, and processes. Along the way, they'll learn how to gather data about political behavior and develop their own theoretical analysis of American politics. They'll also build the skills they need to examine general propositions about government and politics, and to analyze the specific relationships between political, social, and economic institutions. The equivalent of the introductory college-level course, AP U.S. Government and Politics prepares students for the AP Exam and for further study in political science, law, education, business and history.

4215 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.

4216 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, ad 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.

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.

Expectations: Students are expected to demonstrate success in oral and written proficiency assigned in the classroom setting as well as independently or in small groups. Frequent oral and written assessment, regular lesson quizzes, unit exams, and/or group or individual projects. A final grade of at least a C is required to advance to the next level.

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.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessment will include quizzes, exams, readings, in-class formal and informal writings, oral presentations, and in-depth individual or group projects. A final grade of at least a C is required to advance to the next level.

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.

Expectations: Students are expected to actively participate in class discussions and activities in the target language. Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessment will include quizzes, exams, readings, in-class formal and informal writings, oral presentations, and in-depth individual or group projects.

4520 HONORS FRENCH IV Grades 11 – 12 or Proven Proficiency 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of French 3 as well as teacher recommendation

Objectives: 1. To review and continue to build on vocabulary and structures from previous years and French-learning experiences. 2. To explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening. 3. To develop a familiarity and appreciation for French and francophone literature through selected authors and works. 4. To prepare students with a strong foundation for AP French, should they decide to continue their language study.

Description: In Honors French 4, students will explore the language through different mediums, such as literature, native speakers, and cultural activities. The students will refine their language skills and strive to increase their language proficiency. Students will read, interpret, and discuss selections from French and francophone literature. This class is conducted almost exclusively in French.

Expectations: Students are expected to read, analyze, and be able to discuss literary selections. They should be able to function in all four areas of reading, writing, speaking, and listening in French on an intermediate level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. This course is a preparatory course for AP French; however, the student is not required to move on to AP beyond this course. Students are expected to actively participate in class discussions and activities in the target language.

4314 AP FRENCH Grade 12 or Proven Proficiency 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Honors French 4 as well as teacher recommendation.

Objectives:

- 1. To offer students a college level course that explores the French cultures and language.
- 2. To further increase the proficiency level in the four language skills of speaking, reading, writing, and listening.
- 3. To prepare students for the AP French language test.

Description: This course is designed as an intensive preparation for students that continue in French. They will explore the language through different mediums, such as literature, native speakers, and cultural activities. 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 exclusively in French.

Expectations: In AP French, students will be able to function in all four areas of reading, writing, speaking, and listening in French on an intermediate/advanced level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. They are expected to read, analyze, and to be able to discuss literary selections. Students are expected to actively participate in class discussions and activities in the target language. Students are required to take the AP French language exam.

3510 GERMAN I Grades 9 - 12 1.5 Credits/3 Trimesters



Prerequisite: None

Description: This is an introductory course in German Language and Culture with emphasis on communication skills in the German language as well as understanding daily life in German speaking countries. Students will learn to use basic vocabulary and grammatical structures in the four areas of proficiency, reading, writing, listening and speaking. This course will prepare students to participate in the Quaker Valley German Exchange program both at home and/or abroad, if they choose.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessments, lesson quizzes, unit exams, and individual/group projects are some forms of evaluation that will be used. Also, out-of-class readings and active participation in discussions will be and integral part of the class. A final grade of at least a C is required to advance to the next level.





Prerequisite: Successful completion of middle school German or demonstration of proficiency

Description: Students continue to develop proficiency skills as they increase their ease and confidence in communicating in German 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 German speaking countries both within the European Union and globally.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessments, lesson quizzes, unit exams, and individual/group projects are some forms of evaluation that will be used. Also, out-of-class readings and active participation in discussions will be and integral part of the class. A final grade of at least a C is required to advance to the next level.

3545 GERMAN III Grades 10 - 12 1.5 Credit/3 Trimesters



Prerequisite: Successful completion of German II as well as teacher recommendation

Description: In German III, students continue to build on a solid foundation of grammar and vocabulary in order to enable students to become more proficient in German. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Through an interweaving of language and culture, German III 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 German. The class will be taught in German 70% of the time, with grammar explanations and other clarifications being the only exceptions. It is expected that students will use German in class to ask questions and communicate needs.

Expectations: Out-of-class reading, active participation in class discussions, various types of oral presentations, video productions, advanced work in stylistic writings, interpretations, and translations, and in-depth group and individual projects. Complete usage of the target language for all forms of communication is strongly encouraged.

4525 HONORS GERMAN IV Grade 11 or proven proficiency 1.5 credits/3 terms Prerequisite: A letter grade of "B" or better in German III

Objectives:

- 1. To review and expand vocabulary and structures from previous course work in German
- 2. To explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening.
- 3. To develop a familiarity and appreciation for German literature through selected authors and their work.
- 4. To prepare students with a strong foundation for travel and home stay in Germany through our student exchange program with Buxtehude.

Description: Students read, interpret, and discuss selections from selected literature including current events from magazines and newspapers. Oral proficiency skills continue to be developed through topical conversations, creative dramatizations, and class discussions.

Expectations: Students are expected to read, analyze, and be able to discuss literary selections. They will complete a project in which they create a lesson and teach the class. They should be able to function in all four areas of reading, writing, speaking, and listening in German on an intermediate level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. This course is a preparatory course for AP German, when offered, and students will participate in the AATG National German Exam.



3544 SPANISH II Grades 9 – 12 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of middle school Spanish or demonstration of proficiency

Description: Students continue to develop proficiency skills as they increase their ease and confidence in communicating in Spanish 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 Spanish-speaking countries in various aspects of civilization.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessments, lesson quizzes, unit exams, and individual/group projects are some forms of evaluation that will be used. Also, out-of-class readings and active participation in discussions will be and integral part of the class. A final grade of at least a C is required to advance to the next level.

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



Prerequisite: Successful completion of Spanish II as well as teacher recommendation

Description: In Spanish III, students continue to build on a solid foundation of grammar and vocabulary in order to enable students to become more proficient in Spanish. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Through an interweaving of language and culture, Spanish III 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. The class will be taught in Spanish 70% of the time, with grammar explanations being the only exception. It is expected that students will use Spanish in class to ask questions and communicate needs.

Expectations: Out-of-class reading, active participation in class discussions, various types of oral presentations, video productions, advanced work in stylistic writings, interpretations, and translations, and in-depth group and individual projects. Complete usage of the target language for all forms of communication.



Prerequisite: A letter grade of "B" or better in Spanish IV

Objectives:

- 1. To review and continue to build on vocabulary and structures from previous years and Spanish-learning experiences.
- 1. To explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening.
- 2. To develop a familiarity and appreciation for Peninsular and Latin American literature through selected authors and works.
- 3. To prepare students with a strong foundation for AP Spanish, should they decide to continue.

Description: Students read, interpret, and discuss selections from Hispanic literary classics from the 16th, 19th and 20th centuries. Readings vary from the classic literature of Spain to the modern poetry and fiction of authors from South and Central America and the Caribbean. Students also read about and discuss the cultural heritage of Hispanic Americans and the issues facing them as they become a driving force in the society of the United States. Oral proficiency skills continue to be developed through topical conversations, creative dramatizations, and discussions of newspaper and magazine articles and other materials.

Expectations: Students are expected to read, analyze, and be able to discuss literary selections. They will complete a project in which they create a lesson and teach the class. They should be able to function in all four areas of reading, writing, speaking, and listening in Spanish on an intermediate level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. This course is a preparatory course for AP Spanish, however, the student is not required to move on to AP beyond this course. This class is conducted 100% in Spanish.

4512 AP SPANISH Grade 12 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Pre-AP Spanish as well as teacher recommendation

Objectives: 1. To offer students a college level course that explores the Hispanic cultures and language; 2. to further increase the proficiency level in the four language skills of speaking, reading, writing, and listening; 3. to prepare students for the AP Spanish language test.

Description: This course is designed as an intensive preparation for students that continue in Spanish. They will explore the language through different mediums, such as literature, native speakers, and cultural activities. The students will refine their language skills and strive to be more proficient. This course will also further develop the language skills that students need to take the AP Spanish language test.

Expectations: Active and willing class participation, extensive oral and written activities, use of the target language at all times. Students are required to take the AP Spanish language exam.

5501hv MANDARIN CHINESE Grades 9 – 12 1.5 Credits/3 Trimesters



Prerequisites: None.

Description: Mandarin Chinese is a year long, full credit course. Students can participate in the course via Distance Learning via the Live Video Network at their high school and do not need to travel to A.W. Beattie Career Center. This course offers students an introduction to Mandarin Chinese. In addition to building a meaningful vocabulary, students will learn the basic concepts of sentence structure, pronunciation and writing. The course curriculum will follow the model used by the Confucius Institutes across North America. This model has been in place for several years and has been very successful.

Career Technical Center Programs at Parkway West (Oakdale Campus)

The following programs are available to Quaker Valley High School students at Parkway West Career and Technical Center. Students attend Quaker Valley 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.

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.

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

This program offers instruction in the most current techniques for repairs and replacement of damaged auto body parts. Students learn to remove dents and to replace quarter panels, door skins, and fenders. The program includes painting, MIG welding, collision repair, frame straightening, and damage analysis. Students gain experience in detailing, custom painting, mixing and tinting paint, and computerized estimating. This program is certified by the National Automotive Technology Education Foundation.

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

This program is certified by the National Automotive Technology Education Foundation and affiliated with all of the major automotive manufacturers through Automotive Youth Educational Systems. 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.

9920 CONSTRUCTION TECHNOLOGY CLUSTER I 9921 CONSTRUCTION TECHNOLOGY CLUSTER II 9922 CONSTRUCTION TECHNOLOGY CLUSTER III Grades 9 - 12 4.5 Credits/Year

First-year students spend nine weeks in each of the four courses offered in the Construction Technology Cluster: Heating, Ventilation, Air Conditioning and Refrigeration; Electrical Systems Technology; Building Construction Technology and Masonry. Upon successful completion of the one-year rotation, students will choose a concentration for the remainder of their enrollment at PWCTC.

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

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.

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

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.

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

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 Grades 9 – 12 4.5 Credits/Year

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.

9932 INFORMATION TECHNOLOGY ESSENTIALS I 9933 INFORMATION TECHNOLOGY ESSENTIALS II 9934 INFORMATION TECHNOLOGY ESSENTIALS III Grades 9 – 12 4.5 Credits/Year

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 Grades 9 – 12 4.5 Credits/Year

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 Grades 9 – 12 4.5 Credits/Year

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.

9938 WELDING TECHNOLOGY I 9939 WELDING TECHNOLOGY II 9940 WELDING TECHNOLOGY III Grades 9 -12 4.5 Credits/Year

Welding Technology covers several types of welding processes by which metal may be bent, cut or welded together. Students will learn the importance of industry safety, measuring instruments, hand tools, grinders, metallurgy, blueprint reading, electrical principles, layout/design, and fabrication, as well as how to prepare materials lists for cost estimates. Students have the opportunity to earn several American Welding Society (AWS) certifications.



Parkway West Career & Technology Center Career Majors

Note: Students who successfully complete Parkway West CTC programs may be eligible to earn articulated college credit from the following post-secondary institutions:

Art Institute of Pittsburgh Belmont College Butler County Community College California University of Pennsylvania Community College of Allegheny County Empire Education Group Indiana University of Pennsylvania ITT Technical Institute New Castle School of Trades Pennsylvania College of Technology Pittsburgh Culinary Arts Institute Pittsburgh Technical Institute Rosedale Technical Institute Triangle Tech, Inc. University of Northwest Ohio

Scholarships and awards from the above post-secondary institutions and from industry may also be available.

AUTO BODY REPAIR

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.

AUTOMOTIVE TECHNOLOGY

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).

CONSTRUCTION TECHNOLOGY CLUSTER

First-year students spend one nine week period in each of the following four courses offered in the Construction Technology Cluster. They are: Building Construction Technology; Electrical Systems Technology ; Heating, Ventilation, Air-Conditioning and Refrigeration ; and Masonry. Upon successful completion of the one-year rotation, students will choose a concentration for the remainder of their enrollment at PWCTC:

BUILDING CONSTRUCTION TECHNOLOGY

A student in the Building Construction Trades 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 will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card.

ELECTRICAL SYSTEMS TECHNOLOGY

Electrical Systems Technology teaches students 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 (PLC's) and how transformers operate are also covered. Adherence to the National Electric Code is emphasized throughout this course as well as trade safety procedures. This program may lead to additional career pathways such as an Electrical Drafter, Electrical Technicians, Electrical Engineers, Electrical Power-Line Installers and Repairers, Meter Readers/Utilities, Control and Valve Installers/Repairs, and Locomotive Engineers, to just name a few. Additionally, students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card and may have a greater opportunity to join the International Brotherhood of Electrical Workers' Union after graduation.

HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION

Heating, Ventilation, Air-Conditioning, and Refrigeration, which has been newly renovated with state-of-the-industry equipment, provides instruction in basic and advanced electrical theory, troubleshooting and repair of residential and commercial heating, air conditioning, and refrigeration systems. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card.

MASONRY

Masonry offers instruction in the construction of brick and block walls for residential or commercial structures. Students learn techniques of ornamental masonry, ceramic tile, and natural or cultured stone installations. New to the program, students will also be introduced to versa-lok, an interlocking dry wall system. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card and may have a greater opportunity to join the Bricklayers' Union (BAC) after graduation.

COSMETOLOGY

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. This program helps students develop into well-rounded professionals, who practice real-world services in Parkway's salon, which is open to the public two days a week. Utilizing an integrated approach to teaching and learning, students learn about interpersonal relations, professional attitude, and career fundamentals along with technical knowledge and skills. Techniques and abilities are practiced and tested on mannequins, classmates, and the general public. Students who are able to attend this program for three years will have the opportunity to earn 1,250 hours of state-regulated course requirements to take the state licensing exam to be a licensed cosmetologist, which encompasses providing services to the public for hair, skin, and nails. Students who are able to take one or two years of instruction in this program, may choose from the following specialized licensed fields: **Nail Technician License**: This license requires 200 hours of instruction and can be completed within one semester. An individual holding a nail technician license is qualified to perform nail technology services. This license requires 500 hours of required studies and can be complete within one year. An individual holding a teacher's license is qualified to perform the functions of a teacher in whichever specialized area the individual has obtained licensure.

CULINARY ARTS

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. First-year students spend one school year in Culinary Arts Level I. Second and third-year students will advance into Culinary Arts Levels II and III. Senior students who have completed at least two years of Culinary Arts will have the opportunity to earn both the National Restaurant Association's ServSafe certification and the American Culinary Federation certification.

DIGITAL MULTIMEDIA

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. From designing a poster to developing a website, students will have the opportunity to apply their creativity to projects that resemble those in the real world. Students can earn the Adobe Certified Associate certification in Visual Communication and the Adobe Certified Associate in Web Communication certification via Certiport.

HEALTH ASSISTANT

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. Students will have the opportunity to earn and complete the American Heart Association "CPR for Health Care Providers" certification and the following certifications in relation to the Health Care industry:

Pennsylvania State Nurse Aid Registry (CNA): For first and second year students, instruction begins with anatomy, physiology, and medical terminology. Special attention is given to medical office examinations, treatment, and patient care.

Personal Care Home Direct Care Staff – For first and second year students, this component offers a competency test from the PA Department of Public Welfare and it prepares students to work in a personal care home as a direct care giver.

Phlebotomy Technician Certification (CPT): For one semester, senior students only, module and lab work includes: anatomy and physiology, infection control, safety and compliance, patient preparation, collection techniques, and processing of collected sample(s). Students must demonstrate a minimum of 30 successful venipunctures and 10 successful capillary punctures.

Pharmacy Technician Certification (CPhT): After successful completion of this one-year course, students will assist the pharmacist 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, and sterile products, unit dose, and repackaging.

INFORMATION TECHNOLOGY ESSENTIALS

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.

PUBLIC SAFETY TECHNOLOGY

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. Students have the opportunity to earn the following certifications: Emergency Medical Technician- Basic (EMT-B), Basic Vehicle Rescue (BVR), Emergency Vehicle Operators Course (EVOC), Hazardous Materials Recognition and Identification (Haz-Mat R&I), and multiple Federal Emergency Management Agency certifications.

VETERINARY TECHNOLOGY

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. This program may lead to additional career pathways such as Animal Trainer, Animal Breeders, Non-Farm Animal Caretakers, Laboratory Animal Caretakers, Groomers, Animal Control Worker, Veterinary Technologist, and Veterinarian. Upon accreditation, students may earn the Purina Certified Weight Coach, Pharmacy Technician, and Veterinary Assistant certifications.

WELDING TECHNOLOGY

The Welding Technology 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, hand tools, grinders, metallurgy, blueprint reading, electrical principles, layout/design, and fabrication, as well as how to prepare materials lists for cost estimates. Students have the opportunity to earn the American Welding Society (AWS) certification.

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.

		Grade				
	Minimum Required Credits	9	10	11	12	Totals
English & Composition (4 years)	5.0					
Social Studies (4 years)	4.0					
Science & Technology (3 years)	4.5					
Mathematics (3 years)	4.5					
Health I (9, 10) Health II (11, 12)	1.0					
Hon. Personal Project (Grade 10)	1.0					
Physical Education	2.0					
Elective Art						
Elective Computer/Media						
Elective English						
<i>Elective Family & Consumer</i> <i>Science</i>						
Elective World Language	9.0					
Elective Math						
Elective Music						
Elective Social Studies						
Elective Pre-Engineering&Tech	1					
Elective Career Tech. Center	1					
Totals	31.0					

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