


Quakertown High School
2015-2016 Program of Studies



Table of Contents



How to use this digital document: All items in the Table of Contents and in each grade level Program of Study hyperlink to their corresponding course areas inside of the document. You can return to the Table of Contents from inside of the document when you click on the words "Back to the Table of Contents" or by clicking on this blue icon in any section heading:  Click on [blue, single underlined text](#) to visit external links. Click on [blue, double-underlined text](#) to view the term and definition in the Glossary. Click on banners like this to view course description videos: 

General Information..... 1

- Graduation Requirements
- Advanced Placement (AP) Courses
- AP Capstone Program
- Cumulative Grade Point Averages
- Cyber Courses
- Dual Enrollment Opportunities
- Grading
- Honor Roll
- National Collegiate Athletic Association (NCAA)
- Scheduling
- Scheduling Parameters
- Summer School/Tutoring
- Weighted Class Rank

Grade 9 Freshman Center 5

- Grade 9 Program of Study
- Grade 9 Course Descriptions

ACADEMIC LITERACY

- Academic Literacy English
- Academic Literacy Math

ART

- AP Art History
- Art History, C
- Design Concepts in Art, C
- Digital Design and Studio Art

BUSINESS AND INFORMATION TECHNOLOGY

- Interactive Media
- Introduction to Business, C

ENGLISH

- English 9, C
- English 9 Honors, C

FAMILY AND CONSUMER SCIENCE

- Personal Growth, C

HEALTH

Health, C

MATHEMATICS

Algebra 1, C

Algebra 1A, C

Algebra 2 Honors, C

Computer Programming 1

Geometry, C

Geometry Honors, C

MUSIC

High School Chorus

Concert Band

Concert Band and High School Chorus

Panther Marching Band

Varsity Singers

PHYSICAL EDUCATION

Foundations of Wellness and Fitness

Physical Education, C

SCIENCE

Biology 9 Honors

General Science 9, C

General Science 9 Honors, C

SOCIAL STUDIES

AP Human Geography

United States History 2, C

United States History 2 Honors, C

TECHNOLOGICAL STUDIES

Project Lead the Way Courses

Introduction to Engineering Design

WORLD LANGUAGE

German Courses

German 1

German 2

Mandarin Courses

Mandarin 1, C

Spanish Courses

Spanish 1, C

Spanish 2, C

Grade 10 Program of Study
Grade 11 Program of Study
Grade 12 Program of Study
Grades 10, 11, 12 Course Descriptions

AP CAPSTONE
AP Seminar

ART

AP Art History
Art History, C
Design Concepts in Art, C
Digital Graphic Design
Digital Photography 1
Digital Photography 2
Dimensional Art and Surface Texture
Fine Arts 1
Fine Arts 2
Fine Arts 3
Fine Arts 4
Principles of Artisan Design 1
Principles of Artisan Design 2
Principles of Artisan Design 3
Principles of Artisan Design 4

BUSINESS AND INFORMATION TECHNOLOGY

Accounting 1
Accounting 2 Honors
Business Law
Entrepreneurship
Interactive Media
International Business
Introduction to Business, C
Personal Finance, C
Sports Entertainment and Hospitality Marketing

DUAL ENROLLMENT click for (INFORMATION) (DESCRIPTION) ([GLOSSARY](#))

Basic Problems of Philosophy
Introduction to Psychology
Introduction to Sociology
Medical Career Pathways Program
Principles of Economics: Macroeconomics

ENGLISH

- American Literature, C
- American Literature Honors, C
- AP English Language and Composition
- AP English Literature and Composition
- British Literature Full Year Honors, C
- College Admissions Test Prep
- Creative Writing, C
- English Literature and Composition
- Fundamentals of Composition
- Journalism 1
- Journalism 2
- Journalism 3
- Journalism 4
- Public Speaking
- World Literature, C
- World Literature Honors, C
- Yearbook

FAMILY AND CONSUMER SCIENCE

- 21st Century Leadership
- Fashion Design 1
- Fashion Design 2
- Fashion Design 3
- Fashion Design 4
- Foods For a Healthy Lifestyle
- Multicultural Foods
- Parenting
- Personal Growth, C

FIELD STUDY

- Field Study

HEALTH AND PHYSICAL EDUCATION

- Health, C
- Health 2, C
- Fit PLUS
- Movement and Exercise Science (MES)
- Physical Education, C
- Team Works

MATHEMATICS

- Algebra 1, C
- Algebra 1B
- Algebra 2, C
- Algebra 2 Honors, C
- Algebra 2A
- AP Calculus AB
- AP Calculus BC

MATHEMATICS (continued)

- AP Computer Science: JAVA
- AP Probability and Statistics
- Calculus
- College Admissions Test Prep
- Computer Programming 1
- Computer Programming 2
- Geometry, C
- Geometry Honors, C (only)
- Introduction to College Math
- Precalculus, C
- Precalculus Honors, C

MUSIC

- AP Music Theory
- Panther Marching Band
- Pop, Rock and Jazz
- Senior High Choir
- Symphonic Band
- Symphonic Band and Senior High Choir
- Varsity Singers

SCIENCE

- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics 1
- AP Physics 2
- Biology, C
- Biology Honors, C
- Chemistry, C
- Chemistry Honors, C
- Environmental Science
- Forensics
- Introduction to Chemistry
- Introduction to Physics
- Physics, C

SOCIAL STUDIES

- AP Art History
- AP European History
- AP Psychology
- AP United States Government and Politics
- AP United States History
- AP World History
- Political Science, C
- Political Science Honors, C
- Psychology, C

SOCIAL STUDIES (continued)

- Sociology and Anthropology, C
- United States History 3, C
- United States History 3 Honors, C
- World Cultures, C
- World Cultures Honors, C

TECHNOLOGICAL STUDIES

- Project Lead the Way Courses
 - Biological Engineering
 - Civil Engineering and Architecture
 - Computer Integrated Manufacturing
 - Digital Electronics
 - Engineering Design and Development
 - Introduction to Engineering Design
 - Principles of Engineering

Non-Project Lead the Way Technical Studies Courses

- TV News/Video Editing 1
- TV News/Video Editing 2
- TV News/Video Editing 3

WORLD LANGUAGE

- German Courses
 - German 1
 - German 2
 - German 3 Honors
 - German 4 Honors
- Mandarin Courses
 - Mandarin 1, C
 - Mandarin 2, C
 - Mandarin 3, C
 - Mandarin 4, C
- Spanish Courses
 - AP Spanish Language
 - Spanish 1, C
 - Spanish 2, C
 - Spanish 3 Honors

SPECIAL PROGRAMS AND SERVICES

- Adapted Physical Education
- AP Opportunities
- English Language Learners
- Life Skills Support Program
- Medical Career Pathways Program
- Multiple Disabilities Support Program
- Programs for Learning Support and Emotional Support Students
- Special Education Programs

Upper Bucks County Technical School45

UBCTS Course Offerings

- Animal Technology
- Auto Collision Technology
- Automotive Technology
- Baking and Pastry Arts
- Cabinetmaking
- Career Internship Program
- Carpentry
- Construction Technology
- Cosmetology
- Culinary Arts
- Dental Careers
- Diesel Technology
- Electrical Technology
- Graphic Communications
- Health Care Careers
- Landscape Construction and Plant Technology
- Law Enforcement/Criminal Science
- Machining Technologies
- Plumbing Technology
- Small Engine Technology
- Welding and Fabrication Technology

Glossary48

- Advanced Placement (AP) Course (see Course, Advanced Placement (AP))
- Anchors
- Assessment
- Assessment, Embedded
- Assessment, Formative
- Assessment, Summative
- Class Rank
- Core Academic Course (see Course, Core Academic)
- Course, Advanced Placement (AP)
- Course, Core Academic
- Course, Dual Enrollment
- Course, Elective
- Course, General Interest
- Course, Specialized Interest
- Course Quality Points
- Credit
- Cumulative Grade Point Average (see Grade Point Average, Cumulative)
- Cyber

Dual Enrollment Course (see Course, Dual Enrollment)
Distinguished Honor Roll (see Honor Roll, Distinguished)
Elective Course (see Course, Elective)
Eligible Content
Embedded Assessment (see Assessment, Embedded)
Fail
Formative (see Assessment, Formative)
General Interest Course (see Course, General Interest)
Grade Point Average (GPA)
Grade Point Average, Cumulative
Grade Point Average, Unweighted
Grade Point Average, Weighted
Honor Roll
Honor Roll, Distinguished
Individualized Education Program (IEP)
National Collegiate Athletic Association (NCAA)
Pass-Fail
Pennsylvania Core (PA Core)
Pennsylvania Department of Education (PDE)
Pre-requisite
Program of Studies
Quality Points (see Course Quality Points)
Rank (see Class Rank)
Remediate
Remediation (see Remediate)
Specialized Interest Course (see Course, Specialized Interest)
Summative (see Assessment, Summative)
Unweighted Grade Point Average (see Grade Point Average, Unweighted)
Weighted Grade Point Average (see Grade Point Average, Weighted)



Graduation Requirements

[Back to Table of Contents](#)

Each student in the High School must carry a full schedule each year in order to be classified as a full-time student. In exceptional cases, a student may be allowed to carry fewer courses with the approval of the high school principal. Senior students who carry a minimum course load of 3.5 credits (one-half of a full schedule) may be eligible for Early Release or Late Arrival if they meet additional criteria as communicated by the principal. Promotion from one grade to the next, and ultimately, graduation, will be based on the satisfactory completion of individual courses.

CLASS OF 2016 and CLASS OF 2017 Requirements

	QCHS Full Time	UBVTS Students who begin in Grade 9	UBVTS Students who begin in Grades 10-11	UBVTS Students who begin in Grade 12
English	4.0	4.0	4.0	4.0
Social Studies	4.0	3.0	4.0	4.0
Science	4.0	3.0	3.0	4.0
Mathematics	4.0	3.0	3.0	4.0
Physical Education	1.0	1.0	1.0	1.0
Health	1.0	1.0	1.0	1.0
Elective	6.0	9.0	8.0	6.0
	24 credits	24 credits	24 credits	24 credits

CLASS OF 2018 and CLASS OF 2019 Requirements

	QCHS Full Time	UBVTS Students who begin in Grade 9	UBVTS Students who begin in Grades 10-11	UBVTS Students who begin in Grade 12
English	4.0	4.0	4.0	4.0
Social Studies	4.0	3.0	4.0	4.0
Science	4.0	3.0	3.0	4.0
Mathematics	4.0	3.0	3.0	4.0
Physical Education	1.0	1.0	1.0	1.0
Health	0.5	0.5	0.5	0.5
Elective	6.5	9.5	8.5	6.5
	24 credits	24 credits	24 credits	24 credits

To be eligible for graduation, students must complete a minimum of 24 [credits](#), as defined in board policy.

Graduates must meet all graduation criteria described below:

1. Successfully complete an approved [program of study](#).
2. Complete a senior/graduation project according to district standards.

Graduates in the Class of 2017 and beyond must meet all graduation criteria described below:

1. Successfully complete an approved [program of study](#).
2. Complete a senior/graduation project according to district standards.

3. Demonstrate one of the following options based on student's performance on the Keystone exams and programming options:
 - a. Demonstrate [proficiency](#) on the Keystone Exams in Algebra 1, Biology, and Literature.
 - b. Demonstrate [proficiency](#) on a project-based [assessment](#) in one or more of the areas assessed by the Keystone Exams.
 - c. Meet [IEP](#) goals as outlined by the [IEP](#) team.

Please note that Keystone Exam requirements are subject to change based on PA School Code updates and revisions.

Senior Status: A student will be placed in Grade 12 if the student can reach all academic graduation requirements by the conclusion of the school year.

[Advanced Placement \(AP\) Courses](#)

[Back to Table of Contents](#)

Students have opportunities to take many different [Advanced Placement \(AP\)](#) Courses in high school. [AP](#) courses in the Program of Studies are identified with an "[AP](#)" in front of the course name. [AP](#) courses follow a strict set of standards set by the College Board. The College Board is a not-for-profit membership organization committed to excellence and equity in education. Their mission is to connect students to college success and opportunity.

Source: [College Board Website](#)

[AP Capstone Program](#)

[Back to Table of Contents](#)

The AP Capstone Program is a new opportunity for the 2015-2016 and is open to students in the Class of 2017 and 2018 only. The AP Capstone Program is a two-course sequence that engages students in rigorous college-level curricula while promoting the critical skills needed for success in college and beyond. The two course sequence begins with AP Seminar and concludes with AP Research. Students are eligible to earn an AP Capstone Diploma when they earn scores of 3 or higher in both AP Seminar and AP Research, as well as on four additional AP exams of their choosing. Details for the AP Seminar course can be found by clicking [here](#).

[Cumulative Grade Point Averages](#)

[Back to Table of Contents](#)

Two [cumulative grade point averages \(GPA\)](#) are reported on the transcript – [unweighted](#) and [weighted](#). Both cumulative GPA's are computed at the close of each school year and include all graded courses, 9-12. The unweighted GPA is computed by multiplying the final course grade's numerical value with the assigned course [credit](#) to equal the [course quality points](#). The sum of [quality points](#) from all courses attempted is divided by the total [credit](#) value of all courses attempted to determine the [unweighted](#) GPA.

Beginning with the class of 2011, the weighted GPA includes an additional quarter point awarded for all Honors, Project Lead the Way (PLTW) and [Dual Enrollment](#) courses taught by a community college professor. An additional half point is awarded for all [AP](#) courses. For the Class of 2017, 2018, and 2019, an additional three-quarter point is awarded for all [AP](#) courses when a student takes the corresponding [AP](#) exam and earns a passing score of 3, 4, or 5; seniors will not be eligible for this option. (Additional quarter/half points are only received if the earned grade is a "C" or above).

Numerical Value of Final Grades

(Unweighted Courses)

A = 4
 B = 3
 C = 2
 D = 1
 F = 0

Numerical Value of Final Grades

(Honors, PLTW, [Dual Enrollment](#) Courses)

A = 4.25
 B = 3.25
 C = 2.25
 D = 1
 F = 0

Cumulative Grade Point Averages (continued)

[Back to Table of Contents](#)

Numerical Value of Final Grades ([AP](#) Courses)

A = 4.5
B = 3.5
C = 2.5
D = 1
F = 0

Numerical Value of Final Grades

([AP](#) Courses with Passing Test Score of 3, 4, or 5)

Please note: Does not apply to Seniors in the Class of 2016

A = 4.75
B = 3.75
C = 2.75
D = 1
F = 0

Cyber Courses

[Back to Table of Contents](#)

For motivated, self-directed, focused learners, [cyber](#) learning may be a possibility. [Cyber](#) courses are indicated with a "C" after the course title in the [Program of Studies](#). [Cyber](#) courses offer several distinct advantages.

Students may alleviate conflicts in their schedule with a [cyber](#) course. Student learning modalities for a particular subject may be best addressed through [cyber](#) means. The opportunity for students to accelerate at an individualized pace may be available utilizing [cyber](#) courses.

Strategies, which blend [cyber](#) learning with traditional class work, can enhance student engagement and learning. [Cyber](#) learning extends through the innovative use of information and communications technology including webcam and Internet 2.0 tools such as online discussion board.

Cyber courses listed in the Program of Studies are taught by teachers in the [QCSD Cyber Program](#), [Bridges Virtual](#) online learning program, [proxlearn.com](#) online learning program and in the [BlendedSchools.net Language Institute](#).

Additional World Language Course Subjects Available:

- [Proximity Learning Language Courses](#)
- [BSN Language Institute Language Courses](#)

Dual Enrollment Opportunities

[Back to Table of Contents](#)

Quakertown High School has established relationships with a variety of post-secondary institutions in which students may apply to earn college [credit](#) for courses that are taught through various mediums within the high school day. More information about [Dual Enrollment](#) opportunities will be available to students during course selection. [Dual Enrollment](#) courses offered at the high school taught by local college professors are weighted as honors level courses.

Grading

[Back to Table of Contents](#)

QCSD School Board directed grading guidelines for Grades 9-12 starting with the 2014-2015 school year:

- Grading will be based on points and conform to Pennsylvania Common Core Standards.
- All student work will be evaluated and count toward academic grades including homework.
- Final exams will be strongly encouraged and will be at the discretion of the teacher. Keystone and AP Tested subjects will be considered in the decision.
- Schoolwork assignment deadlines will be enforced; how will be up to the teacher.
- Remediation will have specific parameters.

Honor Roll

[Back to Table of Contents](#)

To be eligible for [Honor Roll](#) status, a student must obtain an overall [grade point average](#) of 3.5. No student is eligible for [Honor Roll](#) status who receives a grade lower than a "C."

To be eligible for [Distinguished Honor Roll](#) status, a student must obtain an overall [grade point average](#) of 3.75. No student is eligible for [Distinguished Honor Roll](#) who receives a grade lower than a "B."

National Collegiate Athletic Association (NCAA)

[Back to Table of Contents](#)

The [National Collegiate Athletic Association \(NCAA\)](#) serves to support the student athlete in college. Each college decides if it belongs to NCAA Division 1, Division 2 or Division 3. The college makes that decision by matching its enrollment, financial situation and fan support with the requirements for each division. Then the school must meet those requirements each year.

Click on the links below for more information about the NCAA and its course standards for the college bound athlete.

- Search for "Quakertown" to learn which course offerings meet [NCAA](#) standards [here](#).
- Visit the [NCAA](#) Eligibility Center for Students [here](#).
- Browse the [NCAA](#) Guide for the College Bound Student Athlete [here](#).
- Review the [NCAA](#) Eligibility Quick Reference Sheet [here](#).
- Download the [NCAA](#) Division 1 and 2 Worksheets [here](#).

Source: [NCAA Website](#)

Scheduling

[Back to Table of Contents](#)

Students and parents are requested to be thoughtful and thorough in their selection of courses. All students are expected to continue in, and complete, the courses selected. Any student requesting an [Advanced Placement \(AP\)](#) course must understand there is an expectation regarding the willingness to remain committed to the course and the expectations.

Adequate schedule planning for students, teachers, and classroom space can be completed only when school officials can consider student schedule requests to be final and binding. There are times when a change in this schedule request is desired. When this happens, a conference with a guidance counselor is required. Parents should be involved with this conference in order to assist the student and counselor to arrive at a reasonable decision. Therefore, all schedule changes will be made at the discretion of building administration and guidance.

Scheduling Parameters

[Back to Table of Contents](#)

The high school daily schedule consists of 7 class periods. Students are required to maintain a full schedule. Senior students may be eligible for an exception to the full schedule requirement if they carry a minimum course load of 3.5 credits and meet additional criteria as communicated by the principal. The opportunity to participate in additional courses may be provided by [cyber](#) instruction. Required [core academic](#) courses are year-long. [Elective](#) opportunities may either be year-long or semester-based. Students should consult with teachers, counselors, and their parent(s) prior to selecting an appropriate [program of study](#).

The number of students electing a course and the availability of teachers will determine whether or not a course will be offered. Courses may not run without sufficient enrollment.

Summer School/Tutoring

[Back to Table of Contents](#)

A student who has [failed](#) a required course must take some action to [remediate](#) his/her situation. There are three options available:

1. Pass an approved summer school course in the [failed](#) subject area prior to the opening of the next school year.
2. Secure private tutoring in the [failed](#) subject area by a certified teacher prior to the opening of the next school year (tutor must be approved by the principal). Course must align to district standards and students must receive a passing grade.
3. Repeat the course during the regular school year.

The guidance office will contact students who have [failed](#) courses. The counselors will advise them on the options available for their specific situation. A student may also repeat any [elective](#) course he/she [fails](#).

Weighted [Class Rank](#)

[Back to Table of Contents](#)

The [class rank](#) is computed at the close of each school year (grades 9-11) and after the first and second semesters of senior year. Class rank includes all graded courses, 9-12, with the exception of [pass-fail](#) courses. The cumulative weighted GPA is used to generate the [class rank](#). All students shall be ranked together. Any two or more students whose computed weighted grade point averages are identical shall be given the same rank. The rank of the student who immediately follows a tied position will be determined by the number of students preceding him/her and not by the rank of the person preceding him/her. The [class rank](#) will be reported on the transcript consistent with Board Policy 214.



Grade 9 [Program of Study](#)

[Back to Table of Contents](#)

Student Name _____

[Cyber](#) instruction is available for courses listed with "C." Courses taught only online are listed with "C (only)." Learn more about online courses [here](#).

Required [Core Academic Courses](#)

English

- English 9, C
- English 9 Honors, C

Mathematics

- Algebra 1, C
- Algebra 1A
- Algebra 2 Honors, C
- Geometry, C
- Geometry Honors, C

Health

- Health, C

Physical Education

- Foundations of Wellness and Fitness
- Physical Education, C (only)

Science

- Biology 9 Honors
- General Science, C
- General Science Honors, C

Social Studies

- AP Human Geography
- United States History 2, C
- United States History 2 Honors, C

For identified students based on middle school performance:

Academic Literacy

- Academic Literacy English
- Academic Literacy Math

[General Interest Courses](#)

World Language

German Courses

- German 1
- German 2

Mandarin Courses

- Mandarin 1, C

Spanish Courses

- Spanish 1, C
- Spanish 2, C

World Language (continued)

Additional World Language courses available online:

- [Proximity Learning Language Courses](#), C (only)
- [BSN Language Institute Language Courses](#), C (only)

Music

- High School Chorus
- Concert Band
- Concert Band and High School Chorus

[Specialized Interest Courses](#)

Art

- AP Art History
- Art History, C (only)
- Design Concepts in Art, C (only)
- Digital Design and Studio Art

Business and Information Technology

- Introduction to Business, C
- Interactive Media

Family and Consumer Science

- Personal Growth, C (only)

Mathematics

- Computer Programming 1

Technological Studies

Project Lead the Way Courses

- Introduction to Engineering Design

Grade 9 Course Descriptions

[Back to Table of Contents](#)

ACADEMIC LITERACY

[Back to Table of Contents](#)

Academic Literacy English

Academic Literacy English is an intervention course that supports students with their reading and writing skills. Students will be identified for this course based on multiple data points including their past performance on PSSA assessments.

Academic Literacy Math

Academic Literacy Math is an intervention course that supports students with their math skills. This course is also designed to provide students with extra opportunities to review important skills with the ultimate goal of demonstrating proficiency on the Algebra 1 Keystone Exam.

ART

[Back to Table of Contents](#)

AP Art History

Art History AP is designed to be the equivalent of an introductory college course in art history. In the course, students will examine major forms of artistic expression from the ancient world to the present and from a variety of cultures. Students will examine and analyze works of art which will include paintings, drawings, architecture, sculptures and other media (printmaking, photography, ceramics, fiber arts, etc.), within their historical context. Students will learn to articulate what they see or experience in a meaningful way.

Art History, C (only)

Students will learn about the architecture, sculpture and paintings of the Egyptians, Greeks, Romans and 20th century artists. In addition to viewing many works of art, students will also be producing/creating different projects based on historical artifacts and will explore modern design and techniques.

Design Concepts in Art, C (only)

Students will develop an understanding of design principles as they explore and practice various methods of visual design and art. Students will have multiple opportunities to solve creative problems while researching their designs, studying historical and contemporary art styles and creating artwork in digital and other media.

Digital Design and Studio Art

This course offers a unique combination of cutting edge digital art and animation along with experiences in a variety of hands-on art projects in a traditional art studio as well as an arts computer lab. Foundational concepts of visual design will be built into the projects. Graphic design, digital painting, and animation projects will be part of the Digital Design component of the course. Studio art projects will incorporate classic materials such as pen and ink, printmaking and sculpture.

BUSINESS AND INFORMATION TECHNOLOGY

[Back to Table of Contents](#)

[Course Description Video](#) 

Interactive Media

[Course Description Video](#) 

Web development and design is a collaborative project based curriculum that teaches the foundations of web design and development using Macromedia web tools and Web 2.0 applications. Students will learn about HTML coding and **JavaScript**, the foundations to web design. Using Macromedia Dreamweaver, students will design and build an interactive business web site of interest that will then be integrated into a culminating E-Portfolio website. Incorporating Web 2.0 applications will enable websites to be interactive. Macromedia Fireworks will be used to teach electronic graphic optimization and manipulation. Macromedia Flash will be used to create interactive animations and games to enhance websites. This course is highly recommended to any student interested in careers in the Arts and Humanities or Business and Communications technology.

Introduction to Business, C

Introduction to Business will introduce the student to the exciting and challenging world of business. It will help students become knowledgeable consumers, well-prepared employees, and effective citizens in our economy. It will also give the student an understanding of what it will take to become a business owner. In this course, students research authentic business topics. Students will also create business advertisements and publications. This course is the foundation for other courses such as Personal Finance, Entrepreneurship, Sports & Entertainment Marketing, and Business Law. It is strongly recommended for all ninth graders interested in any business career.

ENGLISH

[Back to Table of Contents](#)

English 9, C

This PA Core and College Board Standards aligned course consists of five (5) units. In Unit 1, the thematic concept of coming of age and the elements of voice are introduced and explored in short stories, poetry, essays, and novels. Students will identify diction, syntax, and tone and analyze the way they work together to convey an author's or speaker's voice. In addition, students will incorporate voice effectively in their own writings. In Unit 2 – Defining Style, students will continue to study the coming of age theme as they analyze the elements of a short story– setting, exposition, complications (rising action), climax, falling action, resolution (denouement), character, and theme. In Unit 3– Exploring Poetic Voices, students will develop the skills and knowledge necessary to analyze and craft poetry, analyze the function of figurative language and its effects, and write original poems that reflect personal voice, style, and an understanding of the poetic elements. In Unit 4 – Coming of Age on Stage, the “coming of age” concept will be examined in context of the play, *Romeo and Juliet*. Students will interpret and perform a scene from the play after multiple interpretations have been studied. In Unit 5 – Coming of Age in Changing Times, students will explore the significance of setting, conflict, and the growth of characters in relation to the theme of coming of age. They will extrapolate from a short passage the larger themes and literary elements of the novel *To Kill a Mockingbird*. Students will be intentional in the use of the strategies that have helped them become a better reader, writer, speaker, listener, or critical thinker.

English 9 Honors, C

This PA Core and College Board Standards aligned course consists of five (5) units. In Unit 1, the thematic concept of coming of age and the elements of voice are introduced and explored in short stories, poetry, essays, and novels. Students will identify diction, syntax, and tone and analyze the way they work together to convey an author's or speaker's voice. In addition, students will incorporate voice effectively in their own writing. In Unit 2 – Defining Style, students will continue to study the coming of age theme as they analyze the elements of a short story– setting, exposition, complications (rising action), climax, falling action, resolution (denouement), character, and theme –. In Unit 3– Exploring Poetic Voices, students will develop the skills and knowledge necessary to analyze and craft poetry, analyze the function of figurative language and its effects, and write original poems that reflect personal voice, style, and an understanding of the poetic elements. They will also present an oral interpretation of a poem. In Unit 4 – Coming of Age on Stage, the “coming of age” concept will be examined in context of the play, *Romeo and Juliet*. Students will interpret and perform a scene from the play after multiple interpretations have been studied. In Unit 5 – Coming of Age in Changing Times, students will explore the significance of setting, conflict, and the growth of characters in relation to the theme of coming of age. They will extrapolate from a short passage the larger themes and literary elements of the novel *To Kill a Mockingbird*. Students will be intentional in the use of the strategies that have helped them become a better reader, writer, speaker, listener, or critical thinker.

Honors students must be self-motivated and willing to challenge themselves to engage in the units of study independently, as well as work effectively within a group dynamic. There will be extensive classroom discussion in both whole group and small group formats. Furthermore, there will be extensive reading and writing required outside of the classroom in order to extend the learning. Students will read an additional classic novel, *The Catcher in the Rye*, and will be expected to produce writing pieces that show a sophisticated and engaging use of writing components such as varied syntax, precise diction, organizational strategies, and figurative language.

FAMILY AND CONSUMER SCIENCE

[Back to Table of Contents](#)

Personal Growth, C (only)

The Personal Growth course will explore how to foster healthy relationships through communication, conflict resolution, and an understanding of human development through different life roles.

HEALTH

[Back to Table of Contents](#)

Health, C

Health is designed to explore the most important health challenges facing teenagers today. Emphasis is placed upon local health-related issues in the Quakertown Community. Students will study the basic systems and functions of the body as they relate to the areas of study outlined in this course. Specific areas of study include substance abuse, teenage sexuality and social/emotional health.

MATHEMATICS

[Back to Table of Contents](#)

Algebra 1, C

Basic to an understanding of the technical innovations in our society, Algebra 1 is the first of the mathematical courses geared toward higher education. Topics of study include variables, function patterns, rational numbers, solving equations, solving inequalities, relations and functions, linear equations and their graphs, systems of equations and inequalities, exponents and exponential functions, polynomials and factoring, quadratic equations and functions, radical expressions and equations, statistics, and rational expressions. Problem solving and real world application are emphasized. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

Algebra 1A, C

This is the first of a two-part series of courses designed to provide students with a solid foundation in algebraic skills. Topics of study include variables, function patterns, rational numbers, solving equations, solving inequalities, relations and functions, linear equations and their graphs, and systems of equations and inequalities. Problem solving and real world application are emphasized.

Algebra 2 Honors, C

Algebra 2 presents the student with a systematic, in-depth study of properties of real numbers, solving equations and inequalities, absolute value, functions and their graphs, linear systems, matrices, quadratic equations and functions, polynomial and polynomial functions, radical functions and radical exponents, exponential and logarithmic functions, quadratic relations and conic sections, sequence and series, probability and statistics, periodic functions and trigonometry, and trigonometric identities and equations. Problem solving and real world application are emphasized.

Computer Programming 1

[Course Description Video](#) 

In this course, students will have hands-on experiences that will expose them to the world of computer science. Students will be exposed to the world of data manipulation using multiple applications. They will learn to use spreadsheets to explore areas of probability, statistics, and data representation and organization of raw data by designing a sample database. They will learn about binary numbers, linear equations, solving for a variable and will be introduced to Logic, Programming in C++, and computer hardware.

Geometry, C

The purpose of this course is to show the student of mathematics how to make the transition from intuitive to demonstrative geometry, and then transfer the procedures learned into effective patterns of thinking. The scope of the course includes patterns and inductive reasoning, measurement, reasoning and proof, parallel and perpendicular lines, congruent triangles, relationships within triangles, quadrilaterals, similarity, right triangles and trigonometry, transformations, coordinate geometry, area, surface area and volume, and circles. Problem solving and real world application are emphasized.

Geometry Honors, C

The purpose of this course is to show the student of mathematics how to make the transition from intuitive to demonstrative geometry, and then transfer the procedures learned into effective patterns of thinking. Students develop effective patterns of thought through the study of logical patterns of thinking. An in depth study of the theories of geometry and their development is presented. A mathematical system using the concepts of two- and three-dimensional geometry is developed. The scope of the course includes patterns and inductive reasoning, measurement, reasoning and proof, parallel and perpendicular lines, congruent triangles, relationships within triangles, quadrilaterals, similarity, right triangles and trigonometry, transformations, coordinate geometry, area, surface area and volume, and circles. Problem solving and real world application are emphasized. Practical problems using algebraic computations are routinely included.

MUSIC

[Back to Table of Contents](#)

High School Chorus

This course is comprised entirely of students in grade 9. Students receive small group instruction. Emphasis is placed on building vocal techniques and music reading skills, and on meeting the special needs of changing voices. The chorus performs at all home concerts and chorus members are entitled to audition for/participate in all of the extra-curricular activities of the vocal music program.

Concert Band

[Course Description Video](#) 

The concert band is comprised entirely of students in grade 9. Students receive small group instruction. The Concert Band focuses on the introduction of advanced musicianship concepts and performs high level music. In addition to performing at all Quakertown Senior High School Band Concerts, the Concert Band also enjoys performance opportunities at band festivals and adjudications around the area. Students must be enrolled in Concert Band in order to be eligible to audition for the QCHS Jazz Ensemble or the QCHS Jazz Lab.

Concert Band and High School Chorus

[Course Description Video](#) 

The Concert Band and High School Chorus combination course is for students who wish to participate in both band and choir. Students will follow the course of study requirements for both courses. Since band and chorus meet during the same period, students will alternate attending each rehearsal.

Panther Marching Band

Panther Marching Band explores the latest trends in marching band. Students will develop and improve their musical abilities on individual instruments, while also working together to produce cohesive and coherent music. The course is held after school hours and students will receive 0.25 credits every year for their participation.

Varsity Singers

Varsity Singers is comprised of a select group of students who excel in vocal music. Students from the choir are selected by audition. Students will work with pieces of music that require an advanced level of vocal skill. Students will develop and improve their vocal abilities, while also working together to produce cohesive and coherent music. Students will also combine their vocal talents with choreography. The course is held after school hours and includes an intensive performance schedule. Students will receive 0.25 credits every year for their participation.

PHYSICAL EDUCATION

[Back to Table of Contents](#)

Foundations of Wellness and Fitness

This course combines the fundamental skills and knowledge pertaining to health and physical fitness concepts. Topics include physical fitness concepts, principles, and strategies toward personal maintenance and improvement for lifelong adherence to a physically active lifestyle. Fitness content includes information about safety, fitness domains, workout types, functional movement, and body composition. Health content includes nutrition, teenage and local health concerns, substance abuse, and issues in teen sexuality (including reproduction). Students will participate actively, and be held accountable for demonstrating understanding of PA academic standards through both performance and content knowledge assessments.

Physical Education, C (only)

Students will be using the Fitness for Life textbook to help assist them in understanding the basic concepts and philosophies surrounding the 11 fitness components. It is a structured and progressive course that emphasizes specific fitness components in each chapter and then requires demonstration of those components through specifically designed workouts. Students are required to perform both the written portion of the course and the workouts designed by the teacher. Students will submit the written work through [Blackboard](#) and complete the worksheets or videotape their workouts to demonstrate understanding of the physical skills and technique for submissions. Students will not have the option to work out at their own gym, walk, log hours, etc.

SCIENCE

[Back to Table of Contents](#)

Biology 9 Honors

The Biology 9 Honors course is designed for students who are not only college bound but are also passionate about taking [Advanced Placement](#) science courses in anticipation of potential majors/careers in the sciences. It is a rigorous and fast-paced course that incorporates all of the Biology 1 Honors concepts as well as the Ecology content from General Science 9 Honors. The course addresses the following content: basic biological principles, the chemical basis for life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, theory of evolution, and ecology. The Biology 9 Honors program will go into great depth and analysis of topics and will include numerous laboratories and individual enrichment activities. Dissections are an integral component of the course. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

General Science 9, C

Students will learn about the following topics in General Science 9:

- [Astronomy](#): history of astronomy, earth/moon/sun system, motions of the sky, light, the sun, stars and the universe as a whole
- [Geology](#): location and navigation, earthquakes and volcanoes, plate tectonics, mineral and rock formation, and the Earth's interior
- [Meteorology](#): the atmosphere, clouds and cloud formation, weather patterns and maps, and severe weather phenomena
- [Ecology](#): Ecosystems and biodiversity, population, cycles of matter and our personal impact on the environment

General Science 9 Honors, C

General Science 9 Honors is designed for highly motivated, science-oriented students. Students will learn about the following topics:

- [Astronomy](#): history of astronomy, earth/moon/sun system, motions of the sky, light, the sun, stars and the universe as a whole
- [Geology](#): location and navigation, earthquakes and volcanoes, plate tectonics, mineral and rock formation, and the Earth's interior
- [Meteorology](#): the atmosphere, clouds and cloud formation, weather patterns and maps, and severe weather phenomena
- [Ecology](#): Ecosystems and biodiversity, population, cycles of matter and our personal impact on the environment

SOCIAL STUDIES

[Back to Table of Contents](#)

AP Human Geography

Human Geography Advanced Placement (AP) is designed for students who are college bound and are ready for a college-level course during their first year of high school. This AP course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. This course will be challenging and rigorous, demanding high level reading and writing skills applied to the content of Human Geography. Human Geography AP fulfills the 9th Grade Social Studies requirement.

United States History 2, C

This course is designed for students to analyze the economic, political, and social issues of the United States as it expanded and became an emerging world power from 1900 to modern America. Also, the students will compare the experience of the United States to other nations as we move toward a more globally interdependent world. The purpose in studying this period is to have students experience the issues people of all nations face as their countries change geographically, politically, economically and culturally. Students will evaluate their role as a citizen in a democratic nation as it faces changing times in the past and present. Major areas of study will include Progressivism and the United States becoming a World Power, World War I, the Prosperity of the 1920's, World War 2 and the Holocaust, the Cold War, the Civil Rights Era, the Vietnam Era, and the successes and challenges facing American from the 1980's through modern times. Students will be actively involved studying current events and completing performance tasks that will evaluate and measure student social studies skill and content knowledge under the current local and state standards. The course will involve the students in an active and intense study of the United States and its place in the world.

United States History 2 Honors, C

This course is designed for students to analyze the economic, political, and social issues of the United States as it expanded and became an emerging world power from 1900 to modern America. Also, the students will compare the experience of the United States to other nations as we move toward a more globally interdependent world. The purpose in studying this period is to have students experience the issues people of all nations face as their countries change geographically, politically, economically and culturally. Students will evaluate their role as a citizen in a democratic nation as it faces changing times in the past and present. Major areas of study will include Progressivism and the United States becoming a World Power, World War I, the Prosperity of the 1920's, World War 2 and the Holocaust, the Cold War, the Civil Rights Era, the Vietnam Era, and the successes and challenges facing American from the 1980's through modern times. Students will be actively involved studying current events and completing performance tasks that will evaluate and measure student social studies skill and content knowledge under the current local and state standards. The course will involve the students in an active and intense study of the United States and its place in the world. This course requires supplementary reading and extensive writing assignments in narrative, informative, and argumentative modes.

TECHNOLOGICAL STUDIES

[Back to Table of Contents](#)

Project Lead the Way Courses (Honors)

[Course Description Video](#) 

Project Lead the Way (PLTW) is a college recognized pre-engineering program designed to introduce students to the careers in Science, Technology, Engineering, and Mathematics (STEM) with an emphasis on engineering. PLTW provides a great opportunity for students to explore the field of engineering and decide if they would enjoy a career in the field of engineering while preparing students for college-level engineering coursework. Students planning to major in engineering can benefit by completing the entire program or by taking one or more of the classes. The program is comprised of two foundation courses, specialization courses, and a capstone course. These courses will be full-year courses and weighted at the quarter point honors level. For information about current affiliated institutions, refer to the [Project Lead the Way website](#). (Note Pre-requisites*)

FOUNDATION COURSES:

Introduction to Engineering Design
Principles of Engineering

SPECIALIZATION COURSES:

Biological Engineering *
Civil Engineering and Architecture *
Computer Integrated Manufacturing*
Digital Electronics*

CAPSTONE COURSE:

Engineering Design & Development *

Introduction to Engineering Design (Honors)

This course introduces students to the design process. Students primarily learn how to use the professional design program, Auto Desk Inventor. Auto Desk Inventor is a state of the art 3-D modeling software program that allows students to create professional looking drawings and presentations. Students will use Inventor to complete various open-ended projects. This class also focuses on topics such as introduction to design, sketching and visualization, geometric relationships, assembly modeling, presentation, production, and marketing. Throughout the course, students will work to develop a professional portfolio.

WORLD LANGUAGE

[Back to Table of Contents](#)

German Courses**German 1**

This [proficiency](#)-based course is intended for students who are beginning their study of German. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. The course introduces basic conversational vocabulary, simple grammar, and basic tenses. Students are introduced to the culture and geography of countries where German is the native language.

German 2

This [proficiency](#)-based course builds upon the skills mastered in German 1. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. In this course, more complex grammar structures are introduced. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. There is an emphasis on communication in the past tense. Short reading selections will be introduced. Students continue their study of German culture and geography.

Mandarin Courses**Mandarin 1, C**

This [proficiency](#)-based course is intended for students who are beginning their study of Mandarin. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. The course introduces basic conversational vocabulary, simple grammar, and basic tenses. Students are introduced to the culture and geography of countries where Mandarin is the native language.

Spanish Courses**Spanish 1, C**

This [proficiency](#)-based course is intended for students who are beginning their study of Spanish. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. The course introduces basic conversational vocabulary, simple grammar, and basic tenses. Students are introduced to the culture and geography of countries where Spanish is the native language.

Spanish 2, C

This [proficiency](#)-based course builds upon the skills mastered in Spanish 1. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. Complex grammar structures are introduced. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. There is an emphasis on communication in the past tense. Short reading selections will be introduced. Students continue their study of Spanish culture and geography.

Grades 10, 11, 12 Senior High



Grade 10 [Program of Study](#)

[Back to Table of Contents](#)

Student Name _____

[Cyber](#) instruction is available for courses listed with "C." Courses taught only online are listed with "C (only)." Learn more about online courses [here](#). [Advanced Placement \(AP\)](#) is available for courses listed with "AP." Learn more information about [AP](#) courses [here](#).

Required [Core Academic Courses](#)

English

- World Literature, C
- World Literature Honors, C

Health

- Health, C

Mathematics

- Algebra 1, C
- Algebra 1B
- Algebra 2, C
- Algebra 2 Honors, C
- Algebra 2A
- Geometry, C
- Geometry Honors, C (only)
- Precalculus, C
- Precalculus Honors, C

Physical Education

- Movement and Exercise Science
- Physical Education, C (only)

Science

For students who are taking General Science 9:

- Biology, C
- Biology Honors, C

For students who are taking Biology 9 Honors:

- Chemistry, C
- Chemistry Honors, C
- AP Physics 1

Social Studies

- AP United States History
- United States History 3, C
- United States History 3 Honors, C

For students who are taking AP Human Geography:

- AP World History

[General Interest Courses](#)

World Language

German Courses

- German 1
- German 2
- German 3 Honors

Mandarin Courses

- Mandarin 1, C
- Mandarin 2, C (only)
- Mandarin 3, C (only)

Spanish Courses

- Spanish 1, C
- Spanish 2, C
- Spanish 3 Honors

Additional World Language courses available online:

- [Proximity Learning Language Courses](#), C (only)
- [BSN Language Institute Language Courses](#), C (only)

Music

- AP Music Theory
- Senior High Choir
- Senior High Choir/Symphonic Band
- Pop, Rock and Jazz (Odd-numbered years only)
- Symphonic Band

(Grade 10 [Specialized Interest Courses](#) continued on next page)

Specialized Interest Courses

AP Capstone

- AP Seminar

Art

- AP Art History
- Art History, C
- Design Concepts in Art, C (only)
- Digital Graphic Design
- Digital Photography
- Dimensional Art and Surface Texture
- Fine Arts 1
- Fine Arts 2
- Principles of Artisan Design 1
- Principles of Artisan Design 2

Business and Information Technology

- Accounting 1
- Accounting 2 Honors
- Business Law
- Entrepreneurship
- Interactive Media
- International Business
- Introduction to Business, C
- Personal Finance, C
- Sports Entertainment and Tourism Marketing

Dual Enrollment click (INFORMATION) (DESCRIPTION) ([GLOSSARY](#))

- Basic Problems of Philosophy
- Introduction to Psychology
- Introduction to Sociology
- Principles of Economics: Macroeconomics

Family and Consumer Science

- 21st Century Leadership
- Fashion Design 1
- Fashion Design 2
- Foods for a Healthy Lifestyle (Offered even-numbered years only)
- Multicultural Foods (Offered odd-numbered years only)
- Personal Growth, C

Health and Physical Education

- Fit PLUS
- Team Works

Language Arts

- College Admissions Test Prep
- Creative Writing, C
- Fundamentals of Composition
- Journalism 1
- Journalism 2
- Public Speaking
- Yearbook

Mathematics

- College Admissions Test Prep
- Computer Programming 1
- Computer Programming 2

Science

- Chemistry 1, C
- Chemistry 1 Honors, C
- Environmental Science, C
- Physics, C

Social Studies

- AP Art History
- AP Psychology
- Psychology, C ([Cyber](#) offered odd-numbered years only)
- Sociology and Anthropology, C ([Cyber](#) offered even-numbered years only)

Technological Studies

- Project Lead the Way ([Pre-requisites](#) *)
- Civil Engineering and Architecture *
- Computer Integrated Manufacturing *
- Digital Electronics *
- Introduction to Engineering Design
- Principles of Engineering

Other Technological Studies

- TV News/Video Editing, Level 1

Virtual High School

- Virtual High School Program (<http://thevhscollaborative.org>)

Grade 11 [Program of Study](#)

[Back to Table of Contents](#)

Student Name _____

[Cyber](#) instruction is available for courses listed with "C." Courses taught only online are listed with "C (only)." Learn more about online courses [here](#). [Advanced Placement \(AP\)](#) is available for courses listed with "AP." Learn more information about [AP](#) courses [here](#).

Required [Core Academic Courses](#)

English

- American Literature, C
- American Literature Honors, C
- AP English Language and Composition

Health

- Health, C
- Health 2, C

Mathematics

- Algebra 2, C
- Algebra 2 Honors
- Algebra 2A
- AP Calculus AB
- AP Calculus BC
- AP Probability and Statistics
- Calculus
- Geometry, C
- Introduction to College Math
- Precalculus, C
- Precalculus Honors, C

Physical Education

- Movement and Exercise Science
- Physical Education, C (only)

Science

- AP Physics 1
- Chemistry, C
- Chemistry Honors, C
- Introduction to Chemistry
- Introduction to Physics
- Physics, C

Social Studies

- AP European History
- World Cultures, C
- World Cultures Honors, C

[General Interest Courses](#)

World Language

German Courses

- German 1
- German 2
- German 3 Honors

Mandarin Courses

- Mandarin 1, C
- Mandarin 2, C (only)
- Mandarin 3, C (only)
- Mandarin 4, C (only)

Spanish Courses

- Spanish 1, C
- Spanish 2, C
- Spanish 3 Honors

Additional World Language courses available online:

- [Proximity Learning Language Courses](#), C (only)
- [BSN Language Institute Language Courses](#), C (only)

Music

- AP Music Theory
- Senior High Choir (Activity fee)
- Senior High Choir/Symphonic Band (Activity fee)
- Pop, Rock and Jazz (Odd-numbered years only)
- Symphonic Band (Activity fee)

(Grade 11 [Specialized Interest Courses](#) continued on next page)

Specialized Interest Courses

AP Capstone

- AP Seminar

Art

- AP Art History
- Art History, C
- Design Concepts in Art, C (only)
- Digital Graphic Design
- Digital Photography
- Digital Photography 2
- Dimensional Art and Surface Texture
- Fine Arts 1
- Fine Arts 2
- Fine Arts 3
- Fine Arts 4
- Principles of Artisan Design 1
- Principles of Artisan Design 2
- Principles of Artisan Design 3
- Principles of Artisan Design 4

Business and Information Technology

- Accounting 1
- Accounting 2 Honors
- Business Law
- Entrepreneurship
- Interactive Media
- International Business
- Introduction to Business, C
- Personal Finance, C
- Sports Entertainment and Tourism Marketing

Dual Enrollment click (INFORMATION) (DESCRIPTION) ([GLOSSARY](#))

- Basic Problems of Philosophy
- Introduction to Psychology
- Introduction to Sociology
- Principles of Economics: Macroeconomics

Family and Consumer Science

- 21st Century Leadership
- Fashion Design 1
- Fashion Design 2
- Fashion Design 3
- Fashion Design 4
- Foods for a Healthy Lifestyle (Offered even-numbered years only)
- Multicultural Foods (Offered odd-numbered years only)
- Parenting
- Personal Growth, C

Health and Physical Education

- Fit PLUS
- Team Works

Language Arts

- College Admissions Test Prep
- Creative Writing, C
- Fundamentals of Composition
- Journalism 1
- Journalism 2
- Journalism 3
- Public Speaking
- Yearbook

Mathematics

- AP Computer Science A – (JAVA) (Optional [Dual Enrollment](#))
- College Admissions Test Prep
- Computer Programming 1
- Computer Programming 2

Science

- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics 1
- Environmental Science, C
- Forensics

Social Studies

- AP Art History
- AP Psychology
- AP United States History
- AP World History
- Psychology, C ([Cyber](#) offered odd-numbered years only)
- Sociology and Anthropology, C ([Cyber](#) offered even-numbered years only)

Technological Studies

- Project Lead the Way ([Pre-requisites](#) *)
- Civil Engineering and Architecture *
- Computer Integrated Manufacturing *
- Digital Electronics *
- Introduction to Engineering Design
- Principles of Engineering

Other Technological Studies

- TV News/Video Editing, Level 1
- TV News/Video Editing, Level 2

Virtual High School

- Virtual High School Program (<http://thevhscollaborative.org>)

Grade 12 [Program of Study](#)

Back to Table of Contents

Student Name _____

[Cyber](#) instruction is available for courses listed with "C." Courses taught only online are listed with "C (only)." Learn more about online courses [here](#). [Advanced Placement \(AP\)](#) is available for courses listed with "AP." Learn more information about [AP](#) courses [here](#).

Required [Core Academic Courses](#)

English

- AP English Literature and Composition
- British Literature Honors, C
- English Literature and Composition

Health and Physical Education

- Health, C
- Health 2, C
- Movement and Exercise Science
- Physical Education, C (only)

Mathematics

- Algebra 2, C
- Algebra 2 Honors, C
- Algebra 2A
- AP Calculus AB
- AP Calculus BC
- AP Probability and Statistics
- Calculus
- Introduction to College Math
- Precalculus, C
- Precalculus Honors, C

Science

- AP Physics 1
- AP Physics 2
- Chemistry, C
- Chemistry Honors, C
- Introduction to Chemistry
- Introduction to Physics
- Physics, C

Social Studies

- AP United States Government and Politics
- Political Science, C
- Political Science Honors, C

[General Interest Courses](#)

World Language

German Courses

- German 1
- German 2
- German 3 Honors
- German 4 Honors

Mandarin Courses

- Mandarin 1, C
- Mandarin 2, C (only)
- Mandarin 3, C (only)
- Mandarin 4, C (only)

Spanish Courses

- AP Spanish
- Spanish 1, C
- Spanish 2, C
- Spanish 3 Honors

Additional World Language courses available online:

- [Proximity Learning Language Courses](#), C (only)
- [BSN Language Institute Language Courses](#), C (only)

Music

- AP Music Theory
- Senior High Choir (Activity fee)
- Senior High Choir/Symphonic Band (Activity fee)
- Pop, Rock and Jazz (Odd-numbered years only)
- Symphonic Band (Activity fee)

(Grade 12 [Specialized Interest Courses](#) continued on next page)

Specialized Interest Courses

Art

- AP Art History
- Art History, C
- Design Concepts in Art, C (only)
- Digital Graphic Design
- Digital Photography
- Digital Photography 2
- Dimensional Art and Surface Texture
- Fine Arts 1
- Fine Arts 2
- Fine Arts 3
- Fine Arts 4
- Principles of Artisan Design 1
- Principles of Artisan Design 2
- Principles of Artisan Design 3
- Principles of Artisan Design 4

Business and Information Technology

- Accounting 1
- Accounting 2 Honors
- Business Law
- Entrepreneurship
- Interactive Media
- International Business
- Introduction to Business, C
- Personal Finance, C
- Sports Entertainment and Tourism Marketing

Dual Enrollment click (INFORMATION)(DESCRIPTION)([GLOSSARY](#))

- Basic Problems of Philosophy
- Introduction to Psychology
- Introduction to Sociology
- Medical Career Pathways Program
- Principles of Economics: Macroeconomics

Family and Consumer Science

- 21st Century Leadership
- Fashion Design 1
- Fashion Design 2
- Fashion Design 3
- Fashion Design 4
- Foods for a Healthy Lifestyle (Offered even-numbered years only)
- Multicultural Foods (Offered odd-numbered years only)
- Parenting
- Personal Growth, C

Field Study

- Field Study

Health and Physical Education

- Fit PLUS
- Team Works

Language Arts

- Creative Writing, C
- Fundamentals of Composition
- Journalism 1
- Journalism 2
- Journalism 3
- Journalism 4
- Public Speaking
- Yearbook

Mathematics

- AP Computer Science A – (JAVA) (Optional [Dual Enrollment](#))
- Computer Programming 1
- Computer Programming 2

Science

- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics 1
- AP Physics 2
- Environmental Science, C
- Forensics

Social Studies

- AP Art History
- AP European History
- AP Psychology
- AP United States History
- AP World History
- Psychology, C ([Cyber](#) offered odd-numbered years only)
- Sociology and Anthropology, C ([Cyber](#) offered even-numbered years only)

Technological Studies

- Project Lead the Way ([Pre-requisites](#) *)
- Civil Engineering and Architecture *
- Computer Integrated Manufacturing *
- Digital Electronics *
- Engineering Design and Development *
- Introduction to Engineering Design
- Principles of Engineering

Other Technological Studies

- TV News/Video Editing, Level 1
- TV News/Video Editing, Level 2
- TV News/Video Editing, Level 3

Virtual High School

- Virtual High School Program (<http://thevhscollaborative.org>)

Grades 10, 11, 12 Course Descriptions

[Back to Table of Contents](#)

AP Capstone

[Back to Table of Contents](#)

[AP Seminar](#)

[AP Seminar](#) is the first of a two-course sequence that leads to the opportunity for students to earn an AP Diploma. AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Students will have three major assessment tasks, two of which are ongoing throughout the year. The Team Project and Presentation includes an individual research and reflection portion, a written team report, and a team multimedia presentation and defense. The Individual Research-Based Essay and Presentation includes an individual written argument, an individual multimedia presentation, and an oral defense. AP Seminar also prepares students for an End-of-Course [AP Exam](#).

ART

[Back to Table of Contents](#)

[AP Art History](#)

Art History [AP](#) is designed to be the equivalent of an introductory college course in art history. In the course, students will examine major forms of artistic expression from the ancient world to the present and from a variety of cultures. Students will examine and analyze works of art which will include paintings, drawings, architecture, sculptures and other media (printmaking, photography, ceramics, fiber arts, etc.), within their historical context. Students will learn to articulate what they see or experience in a meaningful way.

Art History, C

Students will learn about the architecture, sculpture and paintings of the Egyptians, Greeks, Romans and 20th century artists. In addition to viewing many works of art, students will also be producing/creating different projects based on historical artifacts and will explore modern design and techniques.

Design Concepts in Art, C (only)

Students will develop an understanding of design principles as they explore and practice various methods of visual design and art. Students will have multiple opportunities to solve creative problems while researching for their designs, studying historical and contemporary art styles and creating artwork in digital and other media.

Digital Graphic Design

In this course students will use the Adobe Design Suite (Illustrator and Photoshop) in accordance with industry standards to create effective designs. This is a project-oriented course that provides students with skills that can be used in enhancing any presentation, whether it is a cover design, poster, electronic presentation, or for personal expression. Students will learn to use the elements and principles of design to visually communicate their ideas.

Digital Photography 1

Students will study the techniques and processes used to create fine art photographs. Students learn to use professional camera equipment and editing software to create their own original artwork. Using the elements and principles of design, in conjunction with technical skills, students create visually appealing and fundamentally sound photographs. Skills learned in this course also prepare students to create professional quality visuals for future academic or business presentations.

Digital Photography 2

Digital Photography 2 is an advanced art course providing students with skills in creating and editing digital photographs. In this course, students conceptualize and create photographic series and digital art pieces using professional

techniques. Building on the foundations of Digital Photography 1, students are expected to refine their unique voice as a photographer and appreciator of art.

Dimensional Art and Surface Texture

Course Description Video 

This course covers two distinct components. In Dimensional Design, students will create a variety of two and three-dimensional art projects utilizing the elements and principles of design. Emphasis is placed on innovation through the creation of art in the round, relief sculpture, multi-dimensional and pattern. In Surface Texture, students will create a range of textures using a wide variety of media such as paint, clay, wire, metals and papers.

Fine Arts 1

This course is designed to cover traditional art media and skills in both classic and contemporary methods using various media. Drawing techniques will include observation from life including experiences in contour and blind-contour line, value shading in various media, and proportion and composing by free-hand as well as grid techniques. Painting projects will use water-based media and focus on blending as well as more textural or experimental techniques that can be used for contrast.

Fine Arts 2, 3 and 4

Students seek to further improve and refine their skills in the traditional drawing and painting media introduced in Fine Arts 1. Students will continue to explore and develop their creativity and utilization of the elements and principles of design by creating original works of art. As students progress to the higher levels of the course, more advanced drawing and painting techniques will be utilized. A passing grade in Fine Arts 1 is a [prerequisite](#) for admission into this course.

Principles of Artisan Design

Principles of Artisan Design introduces a wide range of concepts through hands-on exploration of traditional and contemporary craft methods. Students will create both two and three-dimensional projects that will either be functional or sculptural in nature, as they explore a variety of techniques and mediums. Units of study include Mixed Media/Collage, Ceramics, Fibers, Jewelry Making/Metalsmithing and Glass. Principles of Artisan Design 1 is a prerequisite to all other levels of this course.

Principles of Artisan Design 2, 3, and 4

The higher levels of Principles of Artisan Design give students the opportunity to refine techniques learned in Principles of Artisan Design 1, but also encourages students to demonstrate their technical and conceptual design ideas. These courses also introduce more challenging and contemporary techniques. The works of art will reflect historical and multicultural themes. Key periods of art will be referenced with emphasis placed on the student's individual artistic abilities. Units of study include Mixed Media/Collage, Ceramics, Fibers, Jewelry Making/Metalsmithing and Glass.

BUSINESS AND INFORMATION TECHNOLOGY

Course Description Video 

[Back to Table of Contents](#)

Accounting 1

Accounting is a means of recording and reporting financial data. You don't have to be a math whiz, but being a structured and organized person helps. As an Accounting 1 student you will journey through the accounting process for a service business organized as a proprietorship. Accounting software will also be used.

Accounting 2 Honors

Unlike the procedural approach of Accounting 1, this in-depth course will be taught from a conceptual approach. Students will develop an understanding of how accounting is used for operating decisions in business and will refer to Apple Computers' annual report to apply the principles learned. Students will learn to understand the economic and legal environment of business, gather and summarize data, and prepare meaningful reports designed to meet the information needs of decision makers. This unique course combines financial and managerial accounting principles. Accounting 1 is not required, but it may be helpful to have that background knowledge for some students.

Business Law

In this course, students will discover how laws and government regulations influence daily activities. Business Law looks at the court system and how civil and criminal law affects us. The focus will be on laws related to employment, credit, banking, bankruptcy, sales contracts, apartment rental, home ownership, automobile purchase, and more. Students will learn how laws can work to a person's advantage and what the penalties are for not observing laws. Students will research interesting cases, then, through small group discussions and role-playing, identify the proper way to proceed when faced with legal situations. A mock trial is a highlight of the course.

Entrepreneurship

Businesses with fewer than 100 employees create over 85 percent of the new jobs in the United States. This course will help students to develop the 21st century skills needed for entrepreneurial activities. Students will learn the characteristics of entrepreneurs and the people who work for them, the benefits and challenges of an entrepreneurial organization, how to create a business plan, how to develop financial documents, and how to succeed and demonstrate strong work ethics. Students will engage in a business project that uses the community as a resource. Since both large and small employers desire entrepreneurial skills, students will be able to transfer what is learned to a career in any type or size of organization.

Interactive Media

[Course Description Video](#) 

Web development and design is a collaborative project-based curriculum that teaches the foundations of web design and development using Macromedia web tools and Web 2.0 applications. Students will learn about HTML coding and **JavaScript**, the foundations of web design. Using Macromedia Dreamweaver, students will design and build an interactive business web site of interest that will then be integrated into a culminating E-Portfolio website. Incorporating Web 2.0 applications will enable websites to be interactive. Macromedia Fireworks will be used to teach electronic graphic optimization and manipulation. Macromedia Flash will be used to create interactive animations and games to enhance websites. This course is highly recommended to any student interested in careers in the Arts and Humanities or Business and Communications technology.

International Business

This course will provide the foundation for studying international business and conducting business in the global economy. Students will develop the appreciation, knowledge, skills, and abilities needed to live and work in a global marketplace and will be provided with a wealth of learning experiences that will prepare them for entry-level international business and marketing occupations. Students will learn about the impact of technology on global business and will be provided with opportunities to analyze alternative aspects of international business. Students will be engage in real-world applications, projects, technology, ethics, and cross-curricular links.

Introduction to Business, C

Introduction to Business will introduce the student to the exciting and challenging world of business. It will help students become knowledgeable consumers, well-prepared employees, and effective citizens in our economy. It will also give students an understanding of what it will take to become business owners. In this course, students research real world business topics. Students will create business advertisements and publications. This course is the foundation for other courses such as Personal Finance, Entrepreneurship, Sports & Entertainment Marketing, and Business Law. It is strongly recommended for all ninth graders interested in any business career.

Personal Finance, C

In this course, students will learn how to best manage personal finances. Activities include the online Stock Market Game, searching for apartments to rent and houses to buy, learning how to complete tax forms, balance a checkbook, lower car insurance payments, and use credit cards wisely.

Sports Entertainment and Hospitality Marketing

This course will take you on a step-by-step journey through the exciting world of sports and entertainment marketing and management. You will learn about the key functions of marketing and how those functions are applied to the sports and entertainment industry. This course will also cover the basics of marketing and management within the hospitality and

tourism industries. It will introduce students to the global environment in which business is conducted within the hospitality and tourism service industry. The major functions of business are addressed with a focus placed on timely issues, diversity, and business challenges within the hospitality and tourism industry. Guest speakers, case studies, and on-line activities will broaden the classroom learning experience.

DUAL ENROLLMENT

[Back to Table of Contents](#)

Basic Problems of Philosophy

This course is offered through: [Bucks County Community College](#).

Investigation of enduring problems in the area of semantics, epistemology, religion, and ethical theory through presentation of philosophers influential in developing the major historic and contemporary positions. Nature of philosophical analysis and judgment emphasized. Source: <http://www.bucks.edu/catalog/courses/social/philosophy/>

Introduction to Psychology

This course is offered through: [Bucks County Community College](#).

Introduction to Psychology is the scientific study of the psychological factors which influence the behavior of individual organisms, both animal and human. Source: <http://www.bucks.edu/catalog/courses/social/psychology/>

Introduction to Sociology

This course is offered through: [Bucks County Community College](#).

This course is an introduction to the basic concepts in the field of sociology, with emphasis upon the application of these concepts to the understanding of American institutions: politics, economics, religion, education, marriage, and the family. Source: <http://www.bucks.edu/catalog/courses/social/sociology/>

Medical Career Pathways Program (no course link available)

This course is offered through: [Bucks County Community College](#).

This program allows students to explore careers in medicine. Through a partnership with St. Luke's Hospital in Quakertown, Bucks County Community College, and Quakertown Senior High School, students take college credit two days per week at QCHS, attend medical seminars at St. Luke's Hospital one day per week, and participate in job shadow experiences at St. Luke's one day per week. Students may participate in their senior year and must provide their own transportation. Students who satisfactorily complete this program by mastering identified competencies will earn one elective credit.

Principles of Economics: Macroeconomics

This course is offered through: [Bucks County Community College](#).

An introduction to the basic principles of economics, with emphasis upon macroeconomic theory and analysis. Among topics considered are the scope and nature of economics, ideology and structure of the American economy, national income and employment theory, business fluctuations, money and banking, fiscal and monetary policies, and economic growth. Source: <http://www.bucks.edu/catalog/courses/social/economics/>

ENGLISH

[Back to Table of Contents](#)

American Literature, C

This PA Core and College Board standards-aligned course consists of several units. In Unit 1 – The American Dream, students explore and examine preconceived notions regarding The American Dream. They define and then synthesize the historical and literary foundations that exist about The American Dream. First, looking at a variety of modes of definition, they develop their own definition of the American Dream. Then, synthesizing a variety of sources, students establish and

communicate their own American Dream and create a clear and insightful essay. In Unit 2 – American Forums — Marketplace of Ideas, students identify the main components and role of argumentation, opinion and editorials by analyzing how writers use logic, evidence and rhetoric to advance their opinions. Students learn to analyze and apply satirical techniques by writing their own pieces that refute the positions of others. They will also recognize the symbols and references that editorial cartoonists use. In Unit 3 – The Power of Persuasion, students define and apply the appeals and devices of rhetoric, analyze, create, and present persuasive speeches. They read, study, interpret, and analyze a variety of cultural, historical, social, and political speeches and quotes for persuasive techniques. After reading the dramatic work, *The Crucible* by Arthur Miller, students develop a literary analysis essay. In Unit 4 - The Pursuit of Happiness, students will consider the American Dream from the viewpoint of what it means to be happy and to pursue happiness. They explore this idea by analyzing and evaluate the structural and stylistic features of texts, most significantly *Into the Wild* by John Krakauer. With this knowledge, they compose a personal essay that employs the stylistic techniques studied along the way. Throughout each unit, students engage in a sequence of activities that focus on the intended learning targets. The scaffolded instructional strategies and multiple learning opportunities advance students toward developing a repertoire of reading and writing strategies, practicing effective speaking skills, becoming active and effective listeners, and viewing and producing media critically.

American Literature Honors, C

This PA Core and College Board standards-aligned course consists of several units. In Unit 1 – The American Dream, students explore and examine preconceived notions regarding The American Dream. They define and then synthesize the historical and literary foundations that exist about The American Dream. First, looking at a variety of modes of definition, they develop their own definition of the American Dream. Then, synthesizing a variety of sources, students establish and communicate their own American Dream and create a clear and insightful essay. In Unit 2 – American Forums — The Marketplace of Ideas, students identify the main components and role of argumentation, opinion and editorials by analyzing how writers use logic, evidence and rhetoric to advance their opinions. Students learn to analyze and apply satirical techniques by writing their own pieces that refute the positions of others. They will also recognize the symbols and references that editorial cartoonists use. In Unit 3 – The Power of Persuasion, students define and apply the appeals and devices of rhetoric, analyze, create, and present persuasive speeches. They read, study, interpret, and analyze a variety of cultural, historical, social, and political speeches and quotes for persuasive techniques. After reading the dramatic work *The Crucible* by Arthur Miller, students develop a literary analysis essay. In Unit 4 - The Pursuit of Happiness, students will consider the American Dream from the viewpoint of what it means to be happy and to pursue happiness. They explore this idea by analyzing and evaluate the structural and stylistic features of texts, most significantly *Into the Wild* by John Krakauer. With this knowledge, they compose a personal essay that employs the stylistic techniques studied along the way. Throughout each unit, students engage in a sequence of activities that focus on the intended learning targets. The scaffolded instructional strategies and multiple learning opportunities advance students toward developing a repertoire of reading and writing strategies, practicing effective speaking skills, becoming active and effective listeners, and viewing and producing media critically.

Honors students must be self-motivated and willing to challenge themselves to engage in the units of study independently, as well as work effectively within a group dynamic. There will be extensive classroom discussion in both whole group and small group formats. Furthermore, there will be extensive reading and writing required outside of the classroom in order to extend the learning. Students will read additional classic novels and will be expected to produce writing pieces that show a sophisticated and engaging use of writing components such as varied syntax, precise diction, organizational strategies, and figurative language.”

AP English Language and Composition

An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. Both their writing and their reading should make students aware of the interactions among a writer’s purposes, audience expectations, and subjects. The AP Language and Composition course assumes that students already understand and use standard English grammar. The intense concentration on language use in this course should enhance their ability to use grammatical conventions both appropriately and with sophistication as well as to develop stylistic maturity in their prose. In AP English Language and Composition, students learn to understand and analyze complex styles of writing by reading works 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. [AP](#) English Language and Composition prepares students for the [AP](#) Exam. The content aligns to the scope and sequence specified by the College Board.

[AP](#) English Literature and Composition

[Advanced Placement](#) English Literature and Composition will give students a learning experience equivalent to a typical undergraduate introduction to literature class. This course provides a broad overview of British Literature with a study of the works of selected English writers from the Old English Period to the Modern Period – along with a few American and World Authors. We will focus on literature through historical, social, and personal levels. Our literary analysis will look through the lenses of style and structure, rhetorical strategies, diction, figurative language, imagery, selection of detail, language, and syntax. In addition to writing a variety of essays focusing on the critical analysis of literature, students will keep a writing log over the course of the year to document their progress and to engage themselves in thinking about their writing. It is expected that students will take the [AP](#) English exam in May.

British Literature Honors Full Year, C

British Literature Honors analyzes works of significant literary and intellectual movements in British history from Anglo-Saxon times to the present. As an honors course, British Literature focuses on helping students acquire the skills necessary to become independent, critical readers, writers, speakers and thinkers. Students will develop their own interpretations of texts and will argue those interpretations in multiple formats through high-level analysis with relevant support from the text. Students will also practice creative writing, during which they will have the opportunity to apply and emulate the literary techniques they have experienced through reading. The course seeks to cultivate an appreciation for the value of literature by asking students to consider the universal questions and topics with which great works grapple. The course aligns with the [Pennsylvania Core](#), and expectations will reflect college-level performance.

College Admissions Test Prep

This course will help students prepare for the SAT and the ACT college admissions tests. Students will take practice tests, learn new vocabulary, focus on sample questions, and develop critical reading comprehension skills. Special emphasis will be placed on test taking strategies and developing testing stamina.

Creative Writing, C

This course is for students who like to write and want to hone their craft. Students will experiment with different genres including nonfiction, fiction, poetry, and drama. By reading, analyzing, and discussing the works of published authors, students will learn to apply effective writing techniques to enhance their original works. All writing assignments will reflect the process of writing from free-writing and brainstorming to editing and publishing. In addition, students will be expected to confer with the teacher and to participate in class discussion and writer response groups. Students will also need to read independently, to maintain a writer's notebook and portfolio, and to reflect on their writing.

English Literature and Composition

This senior English course involves the study of language, literature, and composition. The course integrates literature study across a wide variety of genres with writing for a variety of purposes and audiences. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with a variety of non-fiction texts. Students explore universal themes in literature and the impact of reading and writing to learn. Students demonstrate their learning through writing assignments and oral presentations. Writing includes a focus on necessary college and career readiness skills through argumentative, informational, and narrative modes.

Fundamentals of Composition

College and/or career bound students need excellent writing skills. In this course, students will learn the strategies needed to write effectively in any situation. This course offers students the chance to develop writing skills for any audience, with a sense of purpose, and with voice. Students will write attention-grabbing introductions, thought-provoking conclusions, and choose the correct organizational structure for the content of any writing task. Students will learn valuable research techniques and skills. Through writing assignments, students will develop a wide variety of reading strategies to help them understand even the most difficult of texts. Students will self-select and investigate a topic and compose a research paper.

Through teacher feedback, individual revision, and peer revision, students will learn the disadvantages of passive voice, the wonders of parallel structure, and the power of precise word choice.

Journalism 1, 2, 3 and 4

In addition to examining the roles and responsibilities of the press, students in Journalism I will practice writing the kinds of articles commonly found in major newspapers: news, features, editorials and sports. Principles of newspaper design will also be explored and put into practice. Students will brainstorm story ideas, interview sources, research and compose original and publishable stories for the school newspaper, Paw Prints. In Journalism 2, 3, and 4 students will refine the reporting, writing, and designing skills developed in Journalism 1. They will also complete research projects involving the history, evolution and future of journalism.

Public Speaking

In this presentation-based course, students will explore the fundamental principles of effective communication. Students will develop, organize, practice and present a variety of speeches, both formal and informal, for a variety of purposes. While students participate in class, they will constantly hone their oral communication skills. Through on-going peer feedback, teacher feedback, and self-evaluation, students will develop their writing, speaking, and listening skills. Units for this course include everyday speaking, informational speeches, and the argumentative speech.

World Literature, C

The course consists of several units. In Unit 1 – Cultural Conversations, students will learn to recognize how we define ourselves as individuals through our interactions with external cultural forces. They will understand and apply the basic elements of argument and identify and understand significant cultural conversations within a variety of media sources. Additionally, students will learn how to apply the appropriate conventions and elements of a synthesis essay. In Unit 2 – Cultural Perspectives, students will examine the variety of voices other writers and speakers use depending on audience, on purpose, and forms. Students will apply analytical, critical, creative, and reflective strategies to published texts, peer generated texts, and their own texts. Students will develop speaking and listening skills for effective communication and presentation of ideas. In Unit 3 – Cultures in Conflict, students will analyze character relationships and motivation in a literary work while applying academic writing skills to a literary analysis. They will research and make connections between one’s culture and the culture of another time and place. Unit 4 – Dramatic Justice, examines the varying perspectives on justice across cultures and over time. By recognizing effective elements of persuasion, students will create a persuasive piece. Students will also rehearse and present a dramatic interpretation. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

World Literature Honors, C

The course consists of several units. In Unit 1 – Cultural Conversations, students will learn to recognize how we define ourselves as individuals through our interactions with external cultural forces. They will understand and apply the basic elements of argument and identify and understand significant cultural conversations within a variety of media sources. Additionally, students will learn how to apply the appropriate conventions and elements of a synthesis essay. In Unit 2 – Cultural Perspectives, students will examine the variety of voices other writers and speakers use depending on audience, on purpose, and forms. Students will apply analytical, critical, creative, and reflective strategies to published texts, peer generated texts, and their own texts. Students will develop speaking and listening skills for effective communication and presentation of ideas. In Unit 3 – Cultures in Conflict, students will analyze character relationships and motivation in a literary work while applying academic writing skills to a literary analysis. They will research and make connections between one’s culture and the culture of another time and place. Unit 4 – Dramatic Justice, examines the varying perspectives on justice across cultures and over time. By recognizing effective elements of persuasion, students will create a persuasive piece. Students will also rehearse and present a dramatic interpretation.

Honors students must be self-motivated and willing to challenge themselves to engage in the units of study independently, as well as work effectively within a group dynamic. There will be extensive classroom discussion in both whole group and small group formats. Furthermore, there will be extensive reading and writing required outside of the classroom in order to extend the learning. Students will read additional independent texts and will be expected to produce writing pieces that show a sophisticated and engaging use of writing components such as varied syntax, precise diction, organizational strategies, and figurative language. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

Yearbook

In this course, students will create the school's yearbook. The theories behind gathering information and selecting appropriate material to be incorporated into the yearbook will be discussed. Students also study yearbook production including design, layout, and copywriting. Time management and attention to detail are skills enforced throughout the course. Through the actual production of the yearbook, students take responsibility for their respective sections under the direction of a student editor-in-chief and teacher/yearbook advisor. Students will need to do work outside of the normal school day hours.

FAMILY AND CONSUMER SCIENCE

[Back to Table of Contents](#)

(Students will be expected to pay for all materials used which exceed minimum project requirements.)

21st Century Leadership

What are you planning to do after you graduate from high school? It's not too early to start thinking about it. Whether it's going to college or getting a job and moving out on your own, there are skills we all need to know to be successful as adults. 21st Century Leadership focuses on identifying your personal values and feelings about yourself, setting and achieving goals, stress management, and using strategies for making good decisions in both your personal and professional life. Learning how to listen and communicate more effectively to foster healthy relationships will also be addressed. How much money can I spend on an apartment, how can I afford a new car, and how can I make my money work for me are some of the topics we will cover in money management.

Fashion Design 1

This course is designed for a student with limited sewing experience. Students, with guidance from the instructor, will select their own sewing projects and are expected to purchase all materials for construction of their garments.

Fashion Design 2

This course is designed for the student who desires to improve his/her sewing ability by learning advanced techniques and skills. Emphasis is placed on advanced textile study, commercial pattern alteration and advanced sewing techniques. Students, with guidance from the instructor, will select their own sewing projects and are expected to purchase all materials for construction of garments.

Fashion Design 3

In this course, students will learn the basics of hand and machine tailoring for various garments. Emphasis is placed on tailoring stitches, tailoring, and lining a jacket with a matching companion piece. Students, with guidance from the instructor, will select their own sewing projects and are expected to purchase all materials for construction of garments.

Fashion Design 4

Students (with guidance from instructor) will create a sample book of advanced sewing techniques, and continue to create advanced projects to increase their skills and design techniques. Students are expected to purchase all project materials.

Foods For a Healthy Lifestyle

This course is designed for the active, health conscious student. Students will learn the many facets of foods and nutrition to make delicious and healthy meals. The course includes the study of low calorie, low fat and high energy foods for the active individual.

Multicultural Foods

In this course, students will explore the culture, language, geography, resources, and history of countries around the world as they pertain to the impact on the cuisine of the country and its influence on the United States and the way we eat.

Students will have the opportunity to use equipment, try techniques and taste the foods essential to the cooking of these countries. Countries and regions include: China, France, Italy, Mexico, Spain, India, New Orleans, and Southwestern cuisine.

Parenting

This course is designed to help develop the young adult for a possible future role as a parent. Students will analyze their personal philosophies and beliefs on issues that will affect their lives and their future children such as gender roles, dating parameters, discipline, family planning, parental responsibilities and sexuality. The physical development issues which will affect their children such as genetics, prenatal factors, fertility, pregnancy and childbirth will be updated with current medical information.

Personal Growth, C

The Personal Growth course will explore how to foster healthy relationships through better communication, conflict resolution, and an understanding of human development through your different life roles.

FIELD STUDY

[Back to Table of Contents](#)

Field Study

A student who has successfully met all district graduation requirements may complete an application for Field Study during his/her senior year. This non-credit bearing experience allows the student to pursue activities including but not limited to: community or local college/university courses; career exploration; job shadowing; co-op; internship; or community service. A completed application/proposal must be submitted to the guidance office during program planning and will require administrative approval. Each student will be required to keep an electronic portfolio of his/her experience.

HEALTH AND PHYSICAL EDUCATION

[Back to Table of Contents](#)

Health, C

Health is designed to explore the most important health challenges facing teenagers today. Emphasis is placed upon local health-related issues in the Quakertown Community. Students will study the basic systems and functions of the body as they relate to the areas of study outlined in this course. Specific areas of study include substance abuse, teenage sexuality and social/emotional health.

Health 2, C

The emphasis of Health 2 is to prepare students for the health issues they will face not only as teenagers, but throughout life. The course introduction will emphasize that the majority of adult and chronic disease are preventable. In conjunction with national health education standards, the use of community resources will be promoted to obtain health care and information to maintain good health throughout their adult life. The course will involve a deeper study of issues such as addictions, and human sexuality (prenatal care, childbirth, parenting, positive and negative aspects in relationships). A unit in mental health will be limited to the study of the most common mental health issues and disorders such as anxiety and mood disorders. Students will have the opportunity to receive instruction in basic CPR and the use of an AED (Automatic External Deliberator) on a non-certification basis.

Physical Education

Fit PLUS

Fit PLUS is a **P**ersonal, **L**ifelong, **U**nique, and **S**trong elective course. This course focuses on offering students fun ways to stay physically active throughout life. An emphasis will be on improving one's fitness through a variety of methods such as strength and weight training, circuit training, plyometrics, core strengthening, flexibility training, kettlebell, stability balls, resistance bands, and body sculpting. Students will be exposed to a variety of techniques to help discover which are best suited to their individual needs.

Movement and Exercise Science (MES)

This course expands on the information and techniques learned in previous Health and Physical Education courses. Students will use health and skill-related fitness components in a variety of physical activities and sports. Students will integrate movement skills, concepts, and strategies, along with physical fitness concepts to develop a personalized fitness program. Emphasis will be on self-improvement and application of techniques and knowledge to lead to physical activity and exercise adherence.

Physical Education, C (only)

Students will be using the Fitness for Life textbook to help assist them in understanding the basic concepts and philosophies surrounding the 11 fitness components. It is a structured and progressive course that emphasizes specific fitness components in each chapter and then requires demonstration of those components through specifically designed workouts. Students are required to perform both the written portion of the course and the workouts designed by the teacher. They will submit the written work through [Blackboard](#) and complete the worksheets or videotape their workouts to demonstrate understanding of the physical skills and techniques for submission. Students will not have the option to work out at their own gym, walk, log hours, etc.

Team Works

This activity-based class focuses on developing and improving movement skills for successful gameplay in a variety of team games and sports. Students will learn and apply game strategies and have opportunities for leadership roles such as officiating and refereeing. An emphasis will be on sportsmanship and positive aspects of group dynamics for teams to work toward common goals. Students will have experiences in competitive and recreational settings. Team games and sports may include but are not limited to: basketball, lacrosse, floor hockey, flag football, soccer, ultimate Frisbee, badminton, and volleyball.

MATHEMATICS

[Back to Table of Contents](#)

Algebra 1, C

Basic to an understanding of the technical innovations in our society, Algebra 1 is the first of the mathematical courses geared toward higher education. Topics of study include variables, function patterns, rational numbers, solving equations, solving inequalities, relations and functions, linear equations and their graphs, systems of equations and inequalities, exponents and exponential functions, polynomials and factoring, quadratic equations and functions, radical expressions and equations, statistics, and rational expressions. Problem solving and real world application are emphasized. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

Algebra 1B

Algebra 1B is the second of a two-part series of courses designed to provide students with a solid foundation in algebraic skills. Topics of study include an overview of Algebra IA skills, as well as an introduction to exponents and exponential functions, polynomials and factoring, quadratic equations and functions, radical expressions and equations, statistics, and rational expressions. Problem solving and real world application are emphasized. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

Algebra 2, C

Building on basic Algebra 1 principles, the student in this course studies properties of real numbers, solving equations and inequalities, absolute value, functions and their graphs, linear systems, matrices, quadratic equations and functions, polynomial and polynomial functions, radical functions and radical exponents, exponential and logarithmic functions, rational functions, quadratic relations and conic sections, sequence and series, probability and statistics, periodic functions and trigonometry, and trigonometric identities and equations. Problem solving and real world application are emphasized.

Algebra 2 Honors, C

Algebra 2 presents the student with a systematic, in-depth study of properties of real numbers, solving equations and inequalities, absolute value, functions and their graphs, linear systems, matrices, quadratic equations and functions, polynomial and polynomial functions, radical functions and radical exponents, exponential and logarithmic functions, rational functions, quadratic relations and conic sections, sequence and series, probability and statistics, periodic functions and trigonometry, and trigonometric identities and equations. Problem solving and real world application are emphasized.

Algebra 2A

Building on the basic principles of Algebra 1, the student explores topics such as properties of real numbers, solving equations and inequalities, absolute value, functions and their graphs, linear systems, matrices, quadratic equations and functions, polynomial and polynomial functions, radical functions and radical exponents, exponential and logarithmic functions, rational functions, quadratic relations and conic sections, sequence and series, probability and statistics, periodic functions and trigonometry, and trigonometric identities and equations. Problem solving and real world application are included as appropriate.

AP Calculus AB

This course includes the study of the derivative with applications (e.g., related rates, curve sketching, maximum/minimum, and applications of the differential). The integral (definite and indefinite) is theoretically tied to applications (e.g., work problems, area under the curve, volumes of revolution, and some simple differential equations). The integral and derivative are developed around the use of the polynomial, logarithmic, exponential, trigonometric, and other transcendental functions. Students successfully completing this course are expected to take the [AP](#) Exam.

AP Calculus BC

Calculus AB is a [pre-requisite](#) for Calculus BC. Emphasis will be placed on a deep understanding of the concepts of calculus (limits, derivatives, integrals, and series) and how they relate to one another. Students will be regularly asked to interpret problems and situations and to communicate their process and solutions both orally and in writing.

AP Computer Science: JAVA (Optional [Dual Enrollment-LCCC*](#))

Java is a structured computer language used frequently for technical problem solving via computer. The language works across platforms (Mac OS, Windows, and Linux) making it more dynamic than any other language in use today. The course follows the syllabus prepared by the College Board for [Advanced Placement](#) Computer Science A. Students successfully completing this course qualify to take the [AP](#) exam.

*[Dual Enrollment-LCCC](#): students can choose to earn college [credits](#) through Lehigh Carbon Community College for taking this course at the senior high school. College [credits](#) must be purchased by the student if opting to earn college [credit](#). More information is available through your counselor.

AP Probability and Statistics

This course will extend the study of statistics begun through the four course integrated mathematics curriculum. Students will study descriptive and inferential statistics. Students use and apply normal distributions, linear regression analysis techniques, and hypothesis testing. They will solve difference equations and investigate samples to find confidence levels and errors. A course requirement is to conduct a full data study demonstrating applications of concepts learned. Students successfully completing this course are expected to take the [AP](#) exam.

Calculus

This course will extend the study of statistics begun through the four course integrated mathematics curriculum. Students will study descriptive and inferential statistics. Students use and apply normal distributions, linear regression analysis techniques, and hypothesis testing. They will solve difference equations and investigate samples to find confidence levels and errors. A course requirement is to conduct a full data study demonstrating applications of concepts learned. Students successfully completing this course are expected to take the [AP](#) exam.

College Admissions Test Prep

This course will help students prepare for the SAT and the ACT college admissions tests. Students will take practice tests, learn new vocabulary, focus on sample questions, and develop critical reading comprehension skills. Special emphasis will be placed on test taking strategies and developing testing stamina.

Computer Programming 1

[Course Description Video](#) 

In this course, students will have hands-on experiences that will expose them to the world of computer science. Students will be exposed to the world of data manipulation using multiple applications. They will learn to use spreadsheets to explore areas of probability, statistics, and data representation and organization of raw data by designing a sample database. They will learn about binary numbers, linear equations, solving for a variable and will be introduced to Logic, Programming in C++, and computer hardware.

Computer Programming 2

[Course Description Video](#) 

This course is a follow up to Computer Programming 1. This course will highlight areas of data structure using C++ with emphasis on parameters, pass by reference, vectors, matrix, and graphics. C++ is a structured computer language used frequently for technical program writing. It is also used as a vehicle for the study of problem solving via computer. Students will learn to design simulations that will help explain many of today's phenomena, such as random number generators, data security, and computer based games. This course is best for students who wish to pursue a career in computer science, mathematics, or engineering at the college level. Students can obtain a free copy of a compiler that can be used to design source codes at home. This course will be taught in a Mac lab using Mac based application as a delivery tool. Students participating in this course may earn college [credit](#) if they sign up for [Dual Enrollment](#) opportunities. Students may also opt to take this course for honors [credit](#) provided they complete an extension project.

Geometry, C

The purpose of this course is to show the student of mathematics how to make the transition from intuitive to demonstrative geometry, and then transfer the procedures learned into effective patterns of thinking. The scope of the course includes patterns and inductive reasoning, measurement, reasoning and proof, parallel and perpendicular lines, congruent triangles, relationships within triangles, quadrilaterals, similarity, right triangles and trigonometry, transformations, coordinate geometry, area, surface area and volume, and circles. Problem solving and real world application are emphasized.

Geometry Honors, C (only)

The purpose of this course is to show the student of mathematics how to make the transition from intuitive to demonstrative geometry, and then transfer the procedures learned into effective patterns of thinking. Students develop effective patterns of thought through the study of logical patterns of thinking. An in depth study of the theories of geometry and their development is presented. A mathematical system using the concepts of two- and three-dimensional geometry is developed. The scope of the course includes patterns and inductive reasoning, measurement, reasoning and proof, parallel and perpendicular lines, congruent triangles, relationships within triangles, quadrilaterals, similarity, right triangles and trigonometry, transformations, coordinate geometry, area, surface area and volume, and circles. Problem solving and real world application are emphasized. Practical problems using algebraic computations are routinely included.

Introduction to College Math

This course is designed to assist non-math majors in developing and applying the fundamental concepts of algebra, geometry, and statistics. Topics covered in this course parallel those taught in a college-level introductory course. Emphasis will be placed on both problem solving skills and applications of concepts.

Precalculus, C

This course is designed to help prepare students for calculus in both their conceptual understanding of the key math topics listed below and the technical skills needed regarding each topic. An appreciation for the power and utility of mathematics within the context of the real world is emphasized. The following topics will be discussed throughout the course: functions and graphs; polynomial, power, and rational functions; exponential, logistic, and logarithmic functions; trigonometric functions; analytic trigonometry; systems and matrices; and analytic geometry in two and three dimensions.

Precalculus Honors, C

This course is designed to help prepare students for Calculus in both their conceptual understanding of the key math topics listed below and the technical skills needed regarding each topic. An appreciation for the power and utility of mathematics within the context of the real world is emphasized. The following topics will be discussed throughout the course: functions and graphs; polynomial, power, and rational functions; exponential, logistic, and logarithmic functions; trigonometric functions; analytic trigonometry; applications of trigonometry; systems and matrices; analytic geometry in two and three dimensions; discrete mathematics; and an introduction to Calculus including limits, derivatives, and integrals.

MUSIC

[Back to Table of Contents](#)

[AP Music Theory](#)

This course is designed to develop the student's ability to recognize, understand, and describe the materials and processes of music that are heard or presented in a score. The achievement of this goal may be best promoted by integrated approaches to the student's development of: aural skills through listening, sight-singing skills through performance exercises, keyboard skills, written skills through written exercises, compositional skills through creative exercises, and analytical skills through analytical exercises. The course will seek to instill mastery of the rudiments and terminology of music, including notation, intervals, scales and keys, chords, metric organization, and rhythmic patterns. The course in AP Music Theory is strongly recommended to any student who is considering a college music major or minor, and any student who wants to excel in music at the high school level and beyond.

Panther Marching Band

Panther Marching Band explores the latest trends in marching band. Students will develop and improve their musical abilities on individual instruments, while also working together to produce cohesive and coherent music. The course is held after school hours and students will receive 0.25 credits every year for their participation.

Pop, Rock and Jazz

[Course Description Video](#) 

This course examines the development of American popular music, from the sounds of Dixieland, through bebop and modern jazz, to today's popular fusions of traditional jazz with rock, hip hop, and other emerging styles. The course will examine music through each decade of the 20th century, including a study of the music theater, Vaudeville, blues, Dixieland, the big band era, rock and roll, hard rock, metal, folk, country, rap and hip hop.

Senior High Choir

The Senior High Choir is comprised of students in grades 10-12 who wish to excel in vocal music. Students receive small group instruction. Emphasis is placed on developing each student's singing voice to the highest level possible, and on performing choral music at the highest level possible. There is a continued emphasis on developing music reading skills. The Senior High Choir sings a wide variety of choral music, including the great works of the major composers from the past five centuries. In addition to its many local concerts, the Senior High Choir will participate in away events that may include assemblies for other schools, choral festivals, adjudication festivals, and spring choir tours.

Symphonic Band

[Course Description Video](#) 

The Symphonic Band is comprised of students in grades 10-12 and meets every day as a full ensemble, year-round, during the school day. Students receive small group instruction. The Symphonic Band focuses on developing advanced levels of musicianship and performs Grade 4-6 (out of 6) level literature. In addition to performing at all Quakertown High School

Band Concerts, the Symphonic Band also performs at band festivals and adjudications around the area, giving students the opportunity to perform for varied audiences. Students must be enrolled in Symphonic Band in order to be eligible to audition for the QCHS Jazz Ensemble or the QCHZ Jazz Lab.

Symphonic Band and Senior High Choir

Course Description Video 

The Symphonic Band and Senior High Choir combination course is for students in grades 10-12 who wish to excel in both band and choir. Students will be recommended for this course based on their level of [proficiency](#) both as an instrumentalist and as a singer. In addition, band/choir combination students must display a consistently high level of dedication and commitment to the demands of participating in two advanced performing ensembles. Students will follow the course of study requirements for both courses. Since band and choir meet during the same period, students will alternate attending each rehearsal.

Varsity Singers

Varsity Singers is comprised of a select group of students who excel in vocal music. Students from the choir are selected by audition. Students will work with pieces of music that require an advanced level of vocal skill. Students will develop and improve their vocal abilities, while also working together to produce cohesive and coherent music. Students will also combine their vocal talents with choreography. The course is held after school hours and includes an intensive performance schedule. Students will receive 0.25 credits every year for their participation.

SCIENCE

[Back to Table of Contents](#)

Anatomy and Physiology

This course is designed for the science-oriented student who has successfully completed Biology 1. The course of study focuses on biochemistry, histology, and body systems such as the skeletal, muscular, cardiovascular, endocrine, digestive, and nervous systems. This course is designed for college-bound students with an interest in science, allied health fields, medicine, or a general interest in the biology of the human body. The dissection of the cat and various lab activities are required, integral components of the course.

[AP Biology](#) ([Prerequisite](#): Biology and Chemistry)

[AP Biology](#) is designed to cover all of the topics included in the [AP Biology](#) curriculum. By comprehensively including topics such as biochemistry, energy flow, cytology, genetics, evolution, biotechnology, and ecology, students should have the conceptual framework, factual knowledge, and analytical skills necessary to deal with the rapidly changing science of biology. Heavy emphasis will be placed on inquiry lab work and independent study skills. Dissections are an integral component of this course.

[AP Chemistry](#) ([Prerequisite](#): Chemistry and Algebra II)

This course is designed for students to study all the topics included in the [AP Chemistry](#) curriculum. The key concepts and related content that define the course and exam are organized around underlying principles called the big ideas, which encompass the core scientific principles, theories and processes governing chemical systems: Chemical elements are fundamental building blocks of matter, chemical and physical properties of materials are due to the structure of particles and the forces between them, changes in matter involve the rearrangement of atoms and/or transfer of electrons, rates of chemical reactions are determined by molecular collisions, the laws of thermodynamics describe the role of energy and explain and predict the direction of changes in matter, any bond or intermolecular attraction can be formed and broken. Emphasis is placed on strategic thinking in solving problems. Students enrolling in this course will be encouraged to take the [AP Chemistry](#) examination in May. Extra time outside of the current schedule will be needed to complete the guided inquiry lab activities required by the College Board (this would depend on the structure of the schedule at the high school). It is highly recommended by the College Board that this is a second level chemistry course that be taken after successful completion of a Chemistry course. It is recommended that Physics and Algebra 2 have been taken before or concurrently with this course. A graphing or scientific calculator is required for this course.

AP Environmental Science ([Prerequisite](#): Biology and Chemistry)

Environmental Science [AP](#) is designed to be the equivalent of a college level course. The goal is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems, evaluate the risks associated with environmental problems, and examine alternative solutions for resolving and/or preventing them. Areas of study include: renewable and non-renewable resources, water and air pollution, climate changes and ozone loss, population ecology, food and soil resources, and sustaining biodiversity. The students will perform laboratory experiments and are expected to formally report findings.

AP Physics 1 ([Prerequisite](#): Geometry)

AP Physics 1 is 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 also introduces electric circuits. Students should have completed geometry and be concurrently taking Algebra 2 or an equivalent course.

AP Physics 2 ([Prerequisite](#): Geometry, Algebra 2, and AP Physics 1)

AP Physics 2 is equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics, thermodynamics, electricity and magnetism, optics, and atomic and nuclear physics. Students should be concurrently taking Pre-Calculus or an equivalent course.

Biology, C

Biology is the science of living things. The course includes the following topics: biological principles, the chemical basis of life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, evolution and ecology. Laboratory sessions are scheduled to reinforce the course content. Students master the proper techniques and skills required to operate the microscope and various laboratory equipment. These laboratory activities will be performed both individually and in groups. Students will be involved with dissection activities. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

Biology Honors, C

The Honors Biology program is designed for those college bound students with a special aptitude and interest in the life sciences. It follows the same basic format as the College Preparatory Biology course which includes: biological principles, the chemical basis of life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, evolution and ecology. The Honors program has an accelerated pace, greater depth and analysis of topics, as well as numerous laboratories and individual enrichment activities. Dissections are an integral component of the course. [PDE](#) requires through Chapter 4 that students are proficient on the Keystone Exam for this course as a graduation requirement.

Chemistry, C

This course is primarily designed as an introductory chemistry course for the college bound student who does not intend to major in science or engineering, although it will include some of the concepts in chemistry necessary for fields of study requiring a limited background in chemistry. Topics of study include science as inquiry, properties of matter, matter and energy, structure of matter and reactions. Students will be expected to develop skills in problem analysis and solution. Laboratory activities will be a component of the course and are designed to create hands-on structured and inquiry-based opportunities to practice proper lab techniques, while utilizing report writing, mathematics calculations, and analysis of data to express results for problem analysis.

Chemistry Honors, C

This course will provide a rigorous theoretical background in chemistry; consequently, a student's commitment to hard work and careful study is essential. Topics such as the science as inquiry, properties of matter, matter and energy, structure of matter and reactions will be studied. Emphasis is placed on connecting concepts and analytical thinking and problem solving. Laboratory activities will be a major component of the course and are designed to create hands-on structured and inquiry-based opportunities to practice proper lab techniques, while utilizing report writing, mathematics calculations, and analysis of data to express results for problem analysis.

Environmental Science

This course is designed for environmental science study by those students who have already achieved a fundamental understanding of biological science. Areas of study include but are not limited to the following: ecosystems and interactions, environmental problems and sustainability, population ecology, endangered species, terrestrial biodiversity, food and soil resources, and environmental history. Emphasis will be on building upon previous knowledge of the life sciences. Laboratory activities will be performed by both individuals and groups.

Forensics

This course will provide an introduction to criminalistics and forensics, including topics such as: fingerprints, DNA analysis, fiber and hair analysis, ballistics, document and handwriting analysis, drugs and toxicology, analysis of human (including skeletal) remains, and evidence from blood and other bodily fluids. The course will include case studies and examination of reproduced evidence from actual crimes as well as laboratory analysis of evidence gathered at simulated crime scenes. Students must have successfully completed Biology and Chemistry, or must be taking Chemistry concurrently, to be eligible to participate in this class.

Introduction to Chemistry/Introduction to Physics

In this course each core area will be addressed for 90 days and will focus on a gaining a conceptual understanding of topics and how they impact real life and industry. Topics will include matter and energy, atoms and elements, nomenclature, chemical reactions, describing motion, Newtonian mechanics, circuits and properties of waves.

Physics, C

This course is a Pennsylvania Chapter 4 required course. In this course matter and their interactions are presented through topics such as kinematics, dynamics, energy, momentum, wave motion, and sound. The students will be expected to develop skills in problem analysis and solution. The students will perform various experiments and will be expected to develop skills in laboratory performance and reporting procedures.

SOCIAL STUDIES

[Back to Table of Contents](#)

[AP Art History](#)

Art History [AP](#) is designed to be the equivalent of an introductory college course in art history. In the course, students will examine major forms of artistic expression from the ancient world to the present and from a variety of cultures. Students will examine and analyze works of art which will include paintings, drawings, architecture, sculptures and other media (printmaking, photography, ceramics, fiber arts, etc.), within their historical context. Students will learn to articulate what they see or experience in a meaningful way.

[AP European History](#)

The goals of the [AP](#) European History course are to gain an understanding of the principal themes in modern European history, to develop an ability to analyze historical evidence, to develop an appreciation of European culture, and to prepare for the [AP](#) exam. The focus of study will be the major events and trends in Europe from approximately 1450 (the Renaissance) to the present and will include not only the political history of Europe but also cultural, intellectual, economic, and social history. As this course is equivalent to a college-level course, there will be extensive reading and writing assignments. Students are expected to take the [AP](#) Exam.

[AP Psychology](#)

The [AP](#) Psychology course is designed 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. They also learn about the ethics and methods psychologists use in their science and practice.

AP United States Government and Politics

The goal of this course is to increase understanding of the American Political System, its framework, traditions and values and have each student be successful with the AP exam. This course is concerned with the nature of the American political system, its development over the past two hundred years, and how it works today. Students will examine in detail the principal processes and institutions through which the political system functions, as well as some of the public policies which these institutions establish and how these policies are implemented. Extensive reading and writing activities will be required to augment and enrich the formidable course of study. Emphasis will be placed on developing strong cognitive thinking skills and independent responsibility for factual information. The focus will be to encourage students to approach American Government and Politics as a college level course. Students are expected to take the AP Exam.

AP United States History

The Advanced Placement Program in United States History is designed to provide students with the analytic skill and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students will learn to assess historical materials - their relevance to a given interpretive problem, their reliability, and their importance - and to weigh the evidence and interpretations presented in historical scholarship. This AP history course will develop the skills necessary to arrive at conclusions on the basis of an informed judgment, and to present reasons and evidence clearly and persuasively in essay format. The content of the course will cover the periods from Pre-European America to the present. Students are expected to take the AP Exam.

AP World History

The goal of the AP World History course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. This understanding is achieved through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. It emphasizes relevant factual knowledge used in conjunction with leading interpretive issues and types of historical evidence. The course builds on an understanding of cultural, institutional and technological precedents that, along with geography set the human stage. The course will have as its chronological frame the period from approximately 8000 B.C. to the present. The focus will be to encourage students to approach World History as a college level course. Students are expected to take the AP exam for college credit.

Political Science, C

The goal of political science is to foster in students the knowledge and participatory skills necessary to competently engage in the political and economic life of the United States. To this end, the course examines the Constitution and formal political institutions to better understand the way in which the American government is organized and the role and purposes which it serves. The mechanisms and opportunities for citizen engagement in the political process are investigated through the study of linkage institution such as political parties, interest groups and the media. In order to ensure the preservation and improvement of the United States as well as to safeguard the fundamental liberty of all its citizens, the balancing act between rights and responsibilities is an essential area of focus in this course. The major units of study of this course are Types of Government; Forming of the U.S. Government and Constitution; Nominations and Elections; Political Parties, Public Opinion, and Interest Groups; The Legislative Branch; The Executive Branch; The Judicial Branch; and Fundamental Freedoms.

Political Science Honors, C

The goal of political science is to foster in students the knowledge and participatory skills necessary to competently engage in the political and economic life of the United States. To this end, the course examines the Constitution and formal political institutions to better understand the way in which the American government is organized and the role and purposes which it serves. The mechanisms and opportunities for citizen engagement in the political process are investigated through the study of linkage institution such as political parties, interest groups and the media. In order to ensure the preservation and improvement of the United States as well as to safeguard the fundamental liberty of all its citizens, the balancing act between rights and responsibilities is an essential area of focus in this course. The major units of study of this course are Types of Government; Forming of the U.S. Government and Constitution; Nominations and Elections; Political Parties, Public Opinion, and Interest Groups; The Legislative Branch; The Executive Branch; The Judicial Branch; and Fundamental

Freedoms. Students in the honors class will be expected to become active participants and will be called on to do supplementary reading and more extensive writing assignments in narrative, informative, and persuasive modes.

Psychology, C

This course is designed to explore the major methods and ideas of modern psychology including the study of various mental illnesses, treatments, therapies and the works of noted psychologists.

Sociology and Anthropology, C

This course is designed to examine the subtle changes that occur daily in the world around us and to discuss different sociological issues of our time. The topics of study include an examination of social norms, structures, and types of groups in modern society. With this knowledge, students analyze family dynamics, divorce rates, types of stratification systems and social mobility in the United States. Students will analyze how these social topics affect common deviant behaviors and crimes prevalent in today's society. Students will develop skills in sociological research methods and help them learn how to use sociology to read and analyze situations through writing assignments, collaboration and in-depth discussions. Anthropology focuses on the study of the origin and development of human culture. Students will gain an awareness of anthropology through identification of concepts including cultural relations, language, relationships, and religion, and define the concept of culture, identifying features that distinguish human language from animal communication and explaining why it is important to include nonverbal behavior in the study of culture. With this knowledge, students will discuss formal and informal means by which individuals learn their culture and how factors influence behavior, which focuses on how culture, personality, and human psychology intersect. The concepts of race, gender, religion, and ethnicity are analyzed. Students will define and identify sources of aggression and conflict and mechanisms for preventing, reducing, and resolving conflict.

United States History 3, C

This course will encourage students to become informed, educated citizens in order to prepare them to fully and productively participate in society. Citizen participation in society in part relies on an educated understanding of our past and how that has impacted our society, our government, and our international relationships. The major areas of study will include the Great Depression, World War II, the Cold War, as well as the foreign and domestic policies of the United States from the 1950s through the new millennium. Students will be actively involved studying current events and completing performance tasks that will evaluate and measure student social studies skills and content knowledge as defined by state standards. The course will involve the students in an active and intense study of the United States and its place in the world.

*Please note: The 2015-2016 school year will be the final year for the United States History 3 course offering.

United States History 3 Honors, C

This course will encourage students to become informed, educated citizens in order to prepare them to fully and productively participate in society. Citizen participation in society in part relies on an educated understanding of our past and how that has impacted our society, our government, and our international relationships. The major areas of study will include the Great Depression, World War II, the Cold War, as well as the foreign and domestic policies of the United States from the 1950s through the new millennium. Students will be actively involved studying current events and completing performance tasks that will evaluate and measure student social studies skill and content knowledge as defined by state standards. The course will involve the students in an active and intense study of the United States and its place in the world. Students will be to do supplementary reading and extensive writing assignments in narrative, informative, and persuasive modes.

*Please note: The 2015-2016 school year will be the final year for the United States History 3 Honors course offering.

World Cultures, C

World Cultures is a required, junior-level, social studies course designed to provide student the opportunity to acquire the knowledge and skills necessary to better understand contemporary world issues and embrace their own role, opportunities, and responsibilities in American society. The major areas of study will include North America, Africa, South Asia, the Middle East, the former Soviet Union, East Asia, and Europe. The course focuses on every individual and societal goal of providing the basic needs of food, water, and shelter as well as secondary needs of health care, education, transportation, and recreation. For a broader perspective, students will also investigate the vast array of worldviews and organizational structures present in world societies, with special attention paid to the motivations and belief structures of political, religious,

and business systems. With this knowledge, students will be able, as members of a global community, to obtain a greater understanding, appreciation, and settled tolerance of beliefs, cultures, and values different from their own.

World Cultures Honors, C

World Cultures is a required, junior-level, social studies course designed to provide students the opportunity to acquire the knowledge and skills necessary to better understand contemporary world issues and embrace their own role, opportunities, and responsibilities in American society. The major areas of study will include North America, Africa, South Asia, the Middle East, the former Soviet Union, East Asia, and Europe. The course focuses on every individual and societal goal of providing the basic needs of food, water, and shelter as well as secondary needs of health perspective, students will also investigate the vast array of worldviews and organizational structures present in world societies, with special attention paid to the motivations and belief structures of political, religious, and business systems. With this knowledge, students will be able, as members of a global community, to obtain a greater understanding, appreciation, and settled tolerance of beliefs, cultures, and values different from their own. Students in the honors class will be expected to become active participants and will be required to do supplementary reading and more extensive writing assignments in narrative, informative, and persuasive modes.

TECHNOLOGICAL STUDIES

[Back to Table of Contents](#)

Project Lead the Way Courses (Honors)

[Course Description Video](#) 

Project Lead the Way (PLTW) is a college recognized pre-engineering program designed to introduce students to the careers in Science, Technology, Engineering, and Mathematics (STEM) with an emphasis on engineering. PLTW provides a great opportunity for students to explore the field of engineering and decide if they would enjoy a career in the field of engineering while preparing students for college-level engineering coursework. Students planning to major in engineering can benefit by completing the entire program or by taking one or more of the classes. The program is comprised of two foundation courses, specialization courses, and a capstone course. These courses will be full-year courses and weighted at the quarter point honors level. For information about current affiliated institutions, refer to the [Project Lead the Way website](#). (Note Pre-requisites*)

FOUNDATION COURSES:

Introduction to Engineering Design
Principles of Engineering

SPECIALIZATION COURSES:

Biological Engineering *
Civil Engineering and Architecture *
Computer Integrated Manufacturing*
Digital Electronics *

CAPSTONE COURSE:

Engineering Design & Development *

The above order is the recommended sequence of Project Lead the Way courses; however, students can take the first two courses in any order.

Biological Engineering (Honors) ([Prerequisites](#): Biology, Algebra II, IED or POE) (2016-2017 school year)

Biological Engineering (BioE) is a rigorous activity, project, and problem-based course in which students investigate and design solutions to solve real-world challenges related to world food security, renewable energy, and clean drinking water. Students completing BioE will develop an understanding of the scientific and technological foundations for each of the problems. Students apply their knowledge and skills as they use an engineering design process to design and test solutions that help solve these global challenges. The BioE course is a high school course that is more suited to be taken by 11th or 12th grade students as part of the Project Lead The Way sequence of courses or as an [elective](#). Students should have experience in biology, mathematics, and technology education. Biological Engineering is one of the specialty courses in the Project Lead the Way pre-engineering curriculum, which applies and concurrently develops secondary level knowledge and skills in biology, physics, technology, and mathematics.

Please note: This course will be introduced during the 2016-2017 school year.

Civil Engineering and Architecture (Honors) ([Prerequisite](#): IED or POE)

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the inter-relational and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: The Roles of Civil Engineers and Architects, Project Planning, Site Planning, Building Design, and Project Documentation and Presentation.

Computer Integrated Manufacturing (Honors) ([Prerequisite](#): IED or POE)

This course is one of the specialization courses of the Project Lead the Way program. Through a hands-on approach, students will learn how computers and robotics are used in industry. Students will have an opportunity to design projects that will be created by using a computerized milling machine. They will also learn about robotics by working with small programmable robots, as well as working with a robotic arm that interacts with a CNC milling machine to create a programmable robot cell. This course will allow students to experience how computers, robots, and people, work together to produce the products that we use in our daily lives.

Digital Electronics (Honors) ([Prerequisite](#): IED or POE)

This course will introduce students to the concept of digital electronics and applied logic. Students will learn how to design, build, test, and troubleshoot electronic circuits and projects. Through theory and practical hands-on experience, students will explore the following topics: Fundamentals of Electronics, Logic Gates, Programmable Logic Devices, Boolean Algebra, and Microprocessors. Students will have the opportunity to design and build their own electronic projects.

Engineering Design and Development (Honors) ([Prerequisite](#): IED or POE, and one other Specialization Course)

This course is a research and design class that is the capstone course for the Project Lead the Way program. Students will work in teams to create a solution to a problem that they identified. They will then learn how to use the engineering design process to solve the problem by researching the problem, conducting surveys, and brainstorming solutions. Once a solution is selected, they will create a full set of working drawings and a fully functional prototype of their invention. This course gives students an opportunity to apply what they learned in all of the other PLTW courses to solve a "real world" problem.

Introduction to Engineering Design (Honors)

Introduction to Engineering Design (IED) is one of the core courses of the PLTW program. Students in this class will be introduced to 3-D modeling design using the professional software design program, Auto Desk Inventor. This course will use hands-on problem solving activities as well as research and will emphasize communication and presentation skills. Students will work on such projects as: Puzzle Cube, Custom Organizer, Isometric Shape, Kids Toy, and an Individual Final Project.

Principles of Engineering (Honors)

Principles of Engineering (POE) provides an overview of engineering and engineering technology. Students will develop problem-solving skills by tackling real-world engineering problems. This course provides a hands-on approach to science, math, and technology. Through theory and practical hands-on experience, students will become familiar with the multifaceted career of engineering. This course will explore the following topics: Design Process, Fluid Power, Electronics, Robotics, Mechanical Systems, Materials Testing, Thermodynamics, and Engineering for Quality and Reliability.

Other Technical Studies Courses

TV News/Video Editing 1

[Course Description Video](#) 

This course introduces students to the highly engaging art and science of creating a TV show that will broadcast to the worldwide web, to the QCHS cafeteria TV screens and to the Quakertown region via Comcast and Verizon cable channels. Students will become members of the QCSD Communications Team. They will learn all the elements that go into a production. These include: Video, photography, writing, broadcast anchor work and editing. Resulting work will be public. Therefore, students will be encouraged to develop and follow through with creative ideas. Students are required to gather video footage at one QCSD after-school/evening event approved by teachers, per marking period.

[Course Description Video](#) 

TV News/Video Editing 2

This course is a fast-paced, rigorous application of concepts and applications taught in Level 1. These include storytelling, storyboarding, script-writing, video, photography, broadcast anchor work and editing. Students in Level 2 will become sophisticated producers of television communications for the QCSD public. Resulting work will air on Comcast and Verizon educational access channels. Students are required to gather video footage at one QCSD after-school/evening event approved by teachers, per marking period. Students who take the course must be prepared to spend time outside the high school building gathering video story footage at all district school buildings. The course will encourage collaborative, creative, critical thinking and decision making skills. It will prepare students for college and professional video production.

TV News/Video Editing 3

Creative, ambitious students who have successfully applied what they have learned in Levels 1 and 2 will be able to take the skills to the next level in TV News/Video Editing-Level 3. Through a variety of projects, they will create video stories for QCSD and Quakertown Borough. They will collaborate with QCHS teachers to produce course content tutorials. They will further develop skills for storytelling, storyboarding, script-writing, video, photography, broadcast anchor work and editing. In addition, they will develop leadership skills as the producers of new programming. Resulting work will air on Comcast and Verizon educational access channels as well as the website. Students who take the course are required to film at least one after school or evening event approved by teachers, per marking period to gather video story footage at district school buildings and in the community. The course will demand collaborative, creative, critical thinking and decision making skills. It will prepare students for college and professional video production.

WORLD LANGUAGE

[Back to Table of Contents](#)

German Courses

German 1

This [proficiency](#)-based course is intended for students who are beginning their study of German. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. The course introduces basic conversational vocabulary, simple grammar, and basic tenses. Students are introduced to the culture and geography of countries where German is the native language.

German 2

This [proficiency](#)-based course builds upon the skills mastered in German 1. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. In this course, more complex grammar structures are introduced. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. There is an emphasis on communication in the past tense. Short reading selections will be introduced. Students continue their study of German culture and geography.

German 3 Honors

This [proficiency](#)-based honors course is intended for students who are motivated, organized, and ready to work at a challenging pace. This intensive, fast-paced course assumes that students have mastered intermediate-level structures of the German language. In this course, students continue to sustain spontaneous conversations about familiar and cultural topic, write compositions with increasing control of the present, past, and future tenses, and read authentic texts for comprehension and significance. The course is conducted primarily in German.

German 4 Honors

This [proficiency](#)-based honors course is intended for students who are motivated, organized, and ready to work at a challenging pace. The focus of this course is to increase the students' [proficiency](#) in listening, speaking, reading, and writing in the target language. Students study specialized, contemporary vocabulary and cultural units, which include history, art, music, and current issues. Audio and video recordings, films, and literary excerpts will be used to expand the students' vocabulary and improve their mastery of grammar. The course is conducted in German.

Mandarin Courses

Mandarin 1, C

This [proficiency](#)-based course is intended for students who are beginning their study of Mandarin. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. The course introduces basic conversational vocabulary, simple grammar, and basic tenses. Students are introduced to the culture and geography of countries where Mandarin is the native language.

Mandarin 2, C (only)

This online course develops students' communication abilities in Chinese and develops an understanding of the cultural context in which the language is used. Students learn to communicate through activities in speaking, listening, reading and writing; they will review and learn vocabulary, grammar, sentence patterns and characters; and they will study Chinese cultures and societies. Online class activities are highly interactive and focus on speaking and listening. Reading about texts and Chinese cultures is also emphasized, as are informal writing (to develop fluency) and brief compositions (to develop accuracy). Class is scheduled five lessons per week, one lesson per day. Students are expected to meet their teachers to have online live class and do self-study the rest of the week, including a weekly quiz. The on-line learning platform helps students maximize their learning and practice experience.

Mandarin 3, C (only)

Students go beyond their basic foundation of Chinese language and culture and expand on history, vocabulary, sentence structure, and grammar. Class time is dedicated to interactive activities allowing students to enhance skills in speaking, listening, reading and writing. Through multimedia teaching materials and activities, students are challenged to build upon the information they have learned in the Chinese culture and develop a deeper understanding of the Chinese people. Class is scheduled five lessons per week, one lesson per day. Students meet their teachers twice a week for on-line live class. Students are expected to do self-study the rest of the week, including speaking activities, audio assignments, weekly quizzes, etc. The on-line learning platform helps students maximize their learning and practice experience.

Mandarin 4, C (only)

Students move beyond a basic foundation of the Chinese language and culture and begin the study of advanced Chinese literature. Class time is dedicated to interactive activities and literary translations allowing students to practice their learned speaking, listening, reading and writing skills. Through multimedia teaching materials and activities, students are introduced to many aspects of Chinese culture including intense study of literature, art, calligraphy, and Chinese philosophy. Class is scheduled five lessons per week, one lesson per day. Students meet their teachers twice a week for on-line live class. Students are expected to do self-study the rest of the week, including practice activities, culture activities, weekly quizzes, etc. The on-line learning platform helps students maximize their learning and practice experience.

Spanish Courses

[AP](#) Spanish Language

The [Advanced Placement](#) Spanish Language Program is for those students who have chosen to enhance their [proficiency](#) in Spanish. The academic rigor of this course in content and difficulty is based on a third year college Spanish Language course. Students will be expected to develop the following:

- a strong command of vocabulary and structure;
- an understanding of spoken Spanish in various conversational situations and verbal narratives;
- the ability to read, comprehend, and summarize fiction and non-technical writings;
- the ability to fluently and accurately express ideas orally and in writing.

Spanish 1, C

This [proficiency](#)-based course is intended for students who are beginning their study of Spanish. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. The course introduces basic conversational vocabulary, simple grammar, and basic tenses. Students are introduced to the culture and geography of countries where Spanish is the native language.

Spanish 2, C

This [proficiency](#)-based course builds upon the skills mastered in Spanish 1. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. In this course, more complex grammar structures are introduced. This course requires active participation from each student as he/she develops written and oral communication skills and reading comprehension skills. There is an emphasis on communication in the past tense. Short reading selections will be introduced. Students continue their study of Spanish culture and geography.

Spanish 3 Honors

This [proficiency](#)-based honors course is intended for students who are motivated, organized, and ready to work at a challenging pace. This is the third course in the sequence of preparing students for [Advanced Placement](#) Spanish. This intensive, fast-paced course assumes that students have mastered intermediate-level structures of the Spanish language. In this course, students continue to sustain spontaneous conversations about familiar and cultural topics, write compositions with increasing control of the present, past, and future tenses, and read authentic texts for comprehension and significance. The course is conducted primarily in Spanish

SPECIAL PROGRAMS AND SERVICES

[Back to Table of Contents](#)

Adapted Physical Education

This course is provided for students who cannot participate in regularly scheduled physical education classes. Students who encounter posture, physical fitness, weight, perceptual motor, or other physical complications of either a temporary or permanent nature may be scheduled into an adapted program for the semester or for the duration of activities to meet the student's needs. This can be designed in cooperation with the student's physician and the physical education staff.

AP Opportunities

Students may earn college [credit](#) and/or advanced standing at many colleges by taking and earning a high score on [Advanced Placement](#) Tests offered through the guidance office in May of each school year. Examples of [Advanced Placement](#) Tests frequently taken include English Composition, English Literature, European History, US History, World History, Calculus, Physics, Music Theory, US Government and Politics, Psychology, Computer Science and Foreign Language. While a fee is charged for each test, the fee is usually a fraction of the per [credit](#) cost of courses at the college level.

English Language Learners

The ELL Program is designed to instruct and assist any student whose first language is something other than English. Students are assessed for their speaking, listening, reading, and writing skills in English and then placed in the corresponding ELL level through consultation with the ELL staff. Each course satisfies an English requirement for graduation.

Life Skills Support Program

Students in the Life Skills Support Program are involved in a curriculum designed to meet each individual student's unique needs. Focus is placed on functional academic skills necessary for work and community living. Special emphasis is placed on career exploration and development of job skills. Community-based instruction promotes generalization of skills from practice to application including those needed for banking, shopping, and leisure pursuits. The primary goal of the program is to prepare each student to work and live as independently as possible in the community. Inclusion in high school courses and activities is encouraged and based on individual student interest and need.

Medical Career Pathways Program (no course link available)

This course is offered through: [Bucks County Community College](#).

This program allows students to explore careers in medicine. Through a partnership with St. Luke's Hospital in Quakertown, Bucks County Community College, and Quakertown Senior High School, students take college credit two days per week at QCHS, attend medical seminars at St. Luke's Hospital one day per week, and participate in job shadow experiences at St. Luke's one day per week. Students may participate in their senior year and must provide their own transportation. Students who satisfactorily complete this program by mastering identified competencies will earn one elective credit.

Multiple Disabilities Support Program

Students enrolled in the Multi-Disabilities Support Program participate in a curriculum intended to foster development of skills and behaviors that are considered essential to increasing independence. Emphasis is placed on acquisition of functional skills in the environmental domains of school/community, domestic living, recreation/leisure, and vocational. The goal of the program is to increase independent functioning through the development of each student's cognitive, social, motor, and behavioral skills. Participation in high school activities is encouraged and students are active participants in the school community.

Programs for Learning Support and Emotional Support Students

A continuum of services is available for learning support and emotional support students. Program/course selection is individually tailored to suit the needs and learning style of each student. Special focus is placed on assisting each student in making a smooth transition from high school to his or her chosen post-secondary education or career path. Attention is also directed toward acquisition of social skills, personal development and self-advocacy. Parent involvement is encouraged as a vital component of student success.

Program options include itinerant resource room support, co-taught general education classes in the [core academic areas](#), and learning/emotional support classes in English and Math. Variations are possible based on individual student needs. Students and parents are encouraged to work with a special education teacher and a guidance counselor to insure appropriate course selection that will support the student's post-secondary transition plans.

English and Math courses are available as special education classes. These classes are characterized by small class size, attention to individual needs, and the use of a variety of instructional strategies designed to increase student achievement. Accommodations are tailored to meet the learning needs of each student. Student progress on individual goals is assessed on a regular basis. Emphasis is placed on the development of study skills and [proficiency](#) in meeting standards.

Special Education Programs

(All Grades)

The following programs are provided as defined and mandated by the [Pennsylvania Department of Education](#) to assist those students identified as being in need of an [Individualized Education Program \(IEP\)](#). Contact the Guidance Department for further information about these programs.

- A. Learning Support
- B. Emotional Support
- C. Life Skills Support
- D. Multiple Disabilities Support

Related Service personnel are available to provide for the needs of students with specific disabilities (i.e. hearing, vision, speech, mobility training, physical, therapy, occupational therapy).

The [IEP](#) Team determines the program/services needed to provide an appropriate education.



Upper Bucks County Technical School Course Offerings

[Back to Table of Contents](#)



The Upper Bucks County Technical School provides training to 9th-12th grade students from Palisades, Pennridge, and Quakertown Community school districts in High Priority Occupations. All programs prepare students for immediate employment and post-secondary education. For more information on programs, please visit our website: www.ubtech.org. Please note that programs can accommodate students for 1, 2, 3 or 4 years. Consult with guidance counselors for details. Click on the course names below for more information.

[Animal Technology](#)

- Develop veterinary clinical skills such as assessing animal health and administering medications.
- Raise a variety of animals including sheep, pigs, chinchillas, snakes, and ferrets.
- Work in a team with other students to manage a daycare for dogs in our licensed kennels.

[Auto Collision Technology](#)

- Design and produce custom paintwork.
- Interact with customers to assess accident damage and perform structural and paint repairs.
- Use state-of-the-art technologies in our nationally certified ASE program.

[Automotive Technology](#)

- Diagnose, service, and maintain vehicles.
- Earn Pennsylvania Safety Inspection and Emission Inspection licenses.
- Use state-of-the-art technologies in our nationally certified ASE program.

[Baking and Pastry Arts](#)

- Work with professional chefs to create mouth-watering desserts.
- Express individual creativity through baking.
- Build a solid foundation of essential baking methods with attention to detail and quality.

[Cabinetmaking](#)

- Design and build custom furniture and cabinetry.
- Program and operate computerized woodworking machinery.
- Display and sell individually crafted items to the community.

[Career Internship Program](#)

- Earn and learn in a paid internship experience.
- Gain high school [credit](#) for work experience.
- Build a resume that will assist you with college or career.

[Carpentry](#)

- Build structures that will stand the test of time.
- Utilize hand and power tools such as a builder's transit, pneumatic nail and trim guns.
- Read blueprints, survey, frame and finish from foundation to roof.

Construction Technology

- Cross train in a variety of construction areas including: carpentry, electrical, masonry and plumbing.
- Learn how to remodel your own house.
- Use state-of-the-art power tools and construction equipment.

Cosmetology

- Perform hair, skin, and nail services on clients in our on-site salon.
- Show your style by competing against other students in makeup, hair, and nail art competitions.
- Prepare for the PA State Board of Cosmetology Licensing Exam.

Culinary Arts

- Join our restaurant team to operate our Quiet Corner Café.
- Prepare specialty foods and baked goods in a commercial kitchen.
- Explore the inner workings of successful restaurant operations through field trips.

Dental Careers

- Working chair-side, assist a dentist with patients in our onsite dental clinic.
- Use artistic talents to craft dental prosthetics.
- Educate young children on the importance of dental hygiene.

Diesel Equipment Technology

- Get the big rigs back on the road using computer based diagnostics and repair.
- Perform mechanical repairs and maintenance on fleet vehicles such as fire trucks, buses, and ambulances.
- Use state-of-the-art technologies in our nationally certified ASE program.

Electrical Technology

- Troubleshoot faulty wiring and perform repairs to the National Electrical Code standards.
- Go green and learn about alternative, solar and wind energy systems.
- Prepare for employment in modern commercial settings with motor control and programmable logic controller (PLC) training.

Graphic Communications

- Create custom displays and printed products in our on-site printing lab.
- Develop a professional portfolio to present to prospective employers and colleges.
- Design computer based graphics using PhotoShop, Indesign, and Illustrator.

Health Care Careers

- Work on site at partnering residential care settings and hospitals.
- Use high-tech equipment such as SimMan, InvaCare Lifts, and the Schiller EKG machine with lung study capability.
- Earn CPR, First Aid, Nurse Aid Certifications and prepare for Pharmacy Technician National Exam.

Landscape Construction and Plant Technology

- Grow edible and ornamental crops in our computer controlled greenhouse.
- Design beautiful landscapes with plants, ponds, walkways, fountains, and more.
- Prepare for a variety of career paths including landscaping, hardscaping, greenhouse production, and floral design.

Law Enforcement/Political Science

- Investigate simulated crime scenes.
- Participate in physical training on par with the State Police Academy.
- Learn about the force continuum, weapon safety and Fire Arms Training Simulator (FATS Machine).

Machining Technologies

- Use high-tech computerized equipment to produce precision products used in all industries.
- Make an engineer's design a reality using Computer Numeric Control (CNC) equipment and CAD/CAM software.
- Develop a sound foundation for a career in engineering and manufacturing.

Plumbing Technology

- Use a torch to solder and braze copper tubing.
- Install energy saving units for geothermal and solar heating.
- Design and install residential and commercial fixtures, including laundry, showers, spas, and steam rooms.

Small Engine Technology (no course link available)

- Diagnose and repair small and medium sized engines.
- Work with new and old technologies, from gasoline to electric.
- Work on motorcycles, snow mobiles, tractors, boat motors, and much more.

Welding and Fabrication Technology

- Fabricate individual and team projects for real world applications
- Participate in state-of-the-art virtual reality weld training.
- Melt, form, fuse, and cut metal to specifications.



Terms

[Back to Table of Contents](#)

Advanced Placement (AP) Course	(see Course, Advanced Placement (AP))
Anchors	<p>In an effort to provide greater clarity to the field about the assessment system and to better align the assessments to standards and instructional materials, the Department facilitated the development of Assessment Anchors. The Assessment Anchors clarify the standards assessed on the PSSA and Keystone exams and are used by educators to help prepare students.</p> <p>Source: http://www.portal.state.pa.us/portal/server.pt/document/1242645/2005_anchorintofinal_pdf?qid=36591004&rank=1</p>
Assessment	<p>Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning.</p> <p>Source: <u>Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning.</u> Huba and Freed (2000)</p> <p>Types of assessments used in QCSD include but are not limited to quizzes and tests, project-based assessments, and performance-based assessments.</p>
Assessment, Embedded	<p>Embedded Assessments are performance-based assessments built around the PA Common Core and/or College Board that measure evidence of mastery of skills and knowledge visually, orally and in writing; assessment-specific scoring guides set clear expectations for students.</p> <p>Source: http://springboardprogram.collegeboard.org/</p>
Assessment, Formative	<p>Formative assessments take place throughout the school year. They helps teachers assess what students have and have not learned, and to predict progress towards assessments of standards.</p> <p>Formative assessments are valuable objective and subjective data sources for QCSD teachers indicating if students are ready to continue instruction or if remediation is needed before advancing.</p>

Assessment, Summative	<p>Summative assessments test concepts and skills a student has learned rather than testing in order to teach. Performance is measured against progress to the state standards of competency.</p> <p>Source: http://www.pearson.com/glossary.html#S</p> <p>Some examples of summative assessments at different levels of the education system range in form from classroom-level tests to QCSD district-level benchmark exams to state-level Keystone exams.</p>
Class Rank	<p>Class ranking is a mathematical summary of a student's academic record compared to those of other students in the class. It usually takes into account both the degree of difficulty of the courses a student is taking (AP®, honors, college-preparatory or regular courses) and the grade the student earns. The compilation of courses and grades is converted to an overall grade point average (GPA), and the higher the GPA, the higher the student's class ranking.</p> <p>Source: http://professionals.collegeboard.com/guidance/applications/rank</p> <p>More information about class rank can be shared by QCSD Guidance Counselors using their contact information at www.qcsc.org/guidance</p>
Core Academic Course	<p>(see Course, Core Academic)</p>
Course, Advanced Placement (AP)	<p>The College Board's AP courses are college-level classes in a wide variety of subjects. They offer challenging course work and a taste of what college classes are like.</p> <p>Source: https://bigfuture.collegeboard.org/get-in/testing/learn-about-the-ap-program</p> <p>QCSD students have the opportunity to take a variety of AP courses.</p>
Course, Core Academic	<p>The QCSD Board policy defines core courses as English, Mathematics, Science, and Social Studies.</p>
Course, Dual Enrollment	<p>A dual enrollment course is an opportunity for students to earn college credit while still in high school.</p> <p>Dual enrollment programs are offered to QCSD students through the Bucks Community College, LCCC and in certain QCSD Cyber language subjects listed in this Program of Studies document.</p>

Course, Elective	<p>Elective courses are classes that a student can take which are not specifically required to graduate or to fulfill a degree. They are generally seen as the opposite of core requirements, which are classes that all students must take unless they have special dispensation.</p> <p>Source: http://www.wisegeek.org/what-are-elective-courses.htm</p> <p>QCSD students have many elective course offerings listed in this Program of Studies document. Every QCSD student will be required to take electives to attain the required number of credits.</p>
Course, General Interest	<p>A General Interest Course is a category of courses in the QCSD Program of Studies document that includes World Language courses and Music courses.</p>
Course, Specialized Interest	<p>A Specialized Interest Course is a category of courses in the QCSD Program of Studies document that includes but is not limited to elective courses in Art, Business and Information Technology, Dual Enrollment, Family and Consumer Science, Health, Language Arts, Mathematics, Science, Social Studies, Technological Studies and Virtual High School.</p>
Course Quality Points	<p>Grade points, also known as quality points, are assigned based on a numerical indicator of achievement.</p>
Credit	<p>A course is a unit that gives weighting to the value, level or time requirements of an academic course.</p> <p>Source: http://en.wikipedia.org/wiki/Course_credit</p>
Cumulative Grade Point Average	<p>(see Grade Point Average, Cumulative)</p>
Cyber	<p>Online learning, also known as virtual or cyber schooling, is a form of distance education that uses the Internet and computer technologies to connect teachers and students and deliver curriculum.</p> <p>Source: http://www.inacol.org/resources/faqs/#whatisol</p> <p>The QCSD Cyber is an online program that was started in 2009 and offers part-time and full-time cyber learning opportunities to students to work both on and off-campus.</p>
Dual Enrollment Course	<p>(see Course, Dual Enrollment)</p>
Distinguished Honor Roll	<p>(see Honor Roll, Distinguished)</p>
Elective Course	<p>(see Course, Elective)</p>

Eligible Content	<p>Eligible Content identifies how deeply an Anchor should be covered and specifies the range of the content to best prepare students for the PSSA and Keystone exams.</p> <p>Sources: http://artseducator20.iu1.wikispaces.net/file/view/SAS-Fact-Sheet-1.pdf/346756296/SAS-Fact-Sheet-1.pdf http://static.pdesas.org/content/documents/PSSA%20PACC%20Mathematics%20AA%20EC%20Grade%2008%20Jan%202013.pdf</p> <p>Eligible content guides QCSD curriculum development, instruction and assessment practice.</p>
Embedded Assessment	(see Assessment, Embedded)
Fail	<p>To receive less than the passing grade or mark in an examination, class, or course of study.</p> <p>Source: http://dictionary.reference.com/browse/fail?s=t</p>
Formative	(see Assessment, Formative)
General Interest Course	(see Course, General Interest)
Grade Point Average (GPA)	<p>The GPA is an indication of a student’s academic achievement calculated as the total number of grade points received over a given period divided by the total number of credits awarded.</p> <p>Source: http://www.oxforddictionaries.com/definition/english/grade-point-average</p> <p>More information about GPA can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance.</p>
Grade Point Average, Cumulative	<p>Cumulative Grade Point Average (GPA) refers to the overall GPA, which includes dividing the number of quality points earned in all courses attempted by the total credit hours in all attempted courses.</p> <p>Source: http://gpacalculator.net/how-to-calculate-gpa/cumulative-gpa/</p> <p>More information about Cumulative GPA can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance</p>

Grade Point Average, Unweighted	<p>The unweighted GPA is the average of all class grades based on a 4.0 scale. If the student earned an "A" in an advanced English class, the unweighted grade would still be a 4.0-- the corresponding number on standard grade conversion charts--instead of, for example, a (weighted) 4.5. Regardless of class level, each class is graded on the same point system.</p> <p>Source: http://www.scholarships.com/blog/college-culture/weighted-vs-unweighted-gpa/37/</p> <p>More information about Unweighted GPA can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance</p>
Grade Point Average, Weighted	<p>In QCSD, certain courses are identified as weighted course. The students' final quality points reflect the identified weighting.</p> <p>More information about Weighted GPA can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance</p>
Honor Roll	<p>To be eligible for Honor Roll status in any marking period, a student must obtain a grade point average of 3.5</p> <ul style="list-style-type: none"> - No grade lower than a "C" <p>Sources: http://dictionary.reference.com/browse/honor+roll http://www.qcsd.org/shshandbook</p> <p>More information about Honor Roll can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance</p>
Honor Roll, Distinguished	<p>To be eligible for Distinguished Honor Roll status in any marking period, a student must obtain a grade point average of 3.75</p> <ul style="list-style-type: none"> - No grade lower than a "B" <p>Source: http://www.qcsd.org/shshandbook</p> <p>More information about Distinguished Honor Roll can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance</p>
Individualized Education Program (IEP)	<p>The Individualized Education Program (IEP) is a written document required for each student who is eligible to receive special education services. It is provided to a student who has been determined first to have a disability and, second, to need specially designed instruction.</p> <p>Source: http://www.education.com/reference/article/individualized-education-program-iep1/#A</p>

National Collegiate Athletic Association (NCAA)

The NCAA oversees 89 championships in 23 sports. There are more than 400,000 student-athletes competing in three divisions at over 1,000 colleges and universities within the NCAA. The NCAA maintains a list of courses they approve as NCAA-eligible.

Source:

<http://www.ncaa.org/wps/wcm/connect/public/ncaa/about+the+ncaa/who+we+are+landing+page>

More information about NCAA can be shared by QCSD Guidance Counselors using their contact information at www.qcsd.org/guidance

Pass-Fail

A pass/fail grading system is one in which the student receives either a passing grade or a failing grade.

Source:

<http://classroom.synonym.com/advantages-pass-fail-grading-system-2561.html>

Pennsylvania Core (PA Core)

The PA Core Standards describe what students should know and be able to do from prekindergarten through Grade 12 as established by the Chapter 4 regulations of the Pennsylvania School Codes. The standards provide the targets for instruction and student learning essential for success in academic areas. Although the standards are not a curriculum or a prescribed series of activities, school entities use them to develop a local school curriculum that will meet local students' needs. The standards provide parents and community members with information about what students should know and be able to do as they progress through the educational program and at graduation. With a clearly defined target provided by the standards, parents, students, educators, and community members become partners in learning. Each standard implies an end-of-year goal—with the understanding that exceeding the standard is an even more desirable end goal.

Source:

http://www.portal.state.pa.us/portal/server.pt/community/state_board_of_education/8830

Pennsylvania Department of Education (PDE)

The mission of the Pennsylvania Department of Education is to academically prepare children and adults to succeed as productive citizens. The department seeks to ensure that the technical support, resources and opportunities are in place for all students, whether children or adults, to receive a high quality education.

Source:

http://www.education.state.pa.us/portal/server.pt/community/department_information/7203

QCSD implements curricular, instructional and assessment standards and practices as outlined in Chapter 4 of the Pennsylvania School Code.

Pre-requisite

Certain advanced and/or technical QCSD courses require students to pass identified courses that teach foundational skills upon which the advanced course is built.

Program of Studies

A Program of Studies incorporates secondary education and postsecondary education elements. Courses as listed represent coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education.

Source:

http://www.education.state.pa.us/portal/server.pt/community/programs_of_study/7686/framework/679310

Quality Points

(see [Course Quality Points](#))

Rank

(see [Class Rank](#))

Remediate

An opportunity for students to increase learning of established learning targets.

Remediation

(see [Remediate](#))

Specialized Interest Course

(see [Course, Specialized Interest](#))

Summative

(see [Assessment, Summative](#))

Unweighted Grade Point Average

(see [Grade Point Average, Unweighted](#))

Weighted Grade Point Average

(see [Grade Point Average, Weighted](#))