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Quakertown Community High School  
2018-2019 Program of Studies

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# 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: 

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    - AP Studio Art
    - Digital Design
    - Introduction to Art

## DANCE

- Advanced Technique
- Dance Composition
- Dance Seminar
- Dance Technique
- Fundamentals of Dance

## MUSIC

- Freshman Chorus
- Freshman Concert Band
- Freshman Chorus & Concert Band
- Senior High Choir
- Symphonic Band
- Symphonic Band and Senior High Choir
- AP Music Theory
- Pop, Rock & Jazz
- Jazz Ensemble
- Panther Marching Band
- Varsity Singers

## THEATER

- Introduction to Theater
- Advanced Theater Arts

## BUSINESS AND INFORMATION TECHNOLOGY

- Accounting 1
- Accounting 2 Honors
- Business Law
- Entrepreneurship
- International Business
- Introduction to Business, C
- Personal Finance, C
- Sports Entertainment and Hospitality Marketing
- Web Development and Design

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

- Interpersonal Communication
- Introduction to Psychology
- Introduction to Sociology
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- AP English Language and Composition
- AP English Literature and Composition
- British Literature Full Year Honors, C
- Creative Writing 1, C

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Fundamentals of Composition  
Intro to Journalism  
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AP Calculus AB  
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AP Computer Science: JAVA  
AP Computer Science Principles  
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#### SCIENCE

Anatomy and Physiology  
AP Biology  
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AP Environmental Science  
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Biology Honors, C  
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Earth and Oceanic Science  
Environmental Science  
Forensics  
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#### SOCIAL STUDIES

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AP European History  
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Computer Integrated Manufacturing  
Digital Electronics  
Engineering Design and Development  
Environmental Sustainability  
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

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

Mandarin Courses

- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3, Honors
- Mandarin 4, Honors

Spanish Courses

- AP Spanish Language
- Spanish 1
- Spanish 2
- Spanish 3
- Spanish 3 Honors
- Spanish 4 Honors

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- AP Opportunities
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- Automotive Technology
- Baking and Pastry Arts
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- 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  
Mechatronics  
Plumbing Technology  
Small Engine Technology  
Welding and Fabrication Technology

**Glossary** .....49

Advanced Placement (AP) Course (see Course, Advanced Placement (AP))  
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Program of Studies

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Remediation (see Remediate)

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## Graduation Requirements

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Each student in Quakertown Community 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 5.0 credits 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 2019 and 2020		Class of 2021 and Beyond	
	QCHS Full Time	UBCTS Students who began in Grades 9 or 10	QCHS Full Time	UBCTS Students who begin in Grades 9 or 10
<b>English</b>	4.0	4.0	4.0	4.0
<b>Social Studies</b>	4.0	4.0	4.0	4.0
<b>Science</b>	4.0	3.0	4.0	3.0
<b>Mathematics</b>	4.0	3.0	4.0	3.0
<b>Physical Education</b>	1.0	1.0	1.0	1.0
<b>Health</b>	0.5	0.5	0.5	0.5
<b>Arts</b>			0.5	0.5
<b><u>Elective</u></b>	6.5	8.5	6.0	8.0
	<b>24 <u>credits</u></b>	<b>24 <u>credits</u></b>	<b>24 <u>credits</u></b>	<b>24 <u>credits</u></b>

**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 College and Career Readiness portfolio 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 QCSD defined skills-based [assessment](#) in Algebra 1, Biology, and Literature.
  - 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

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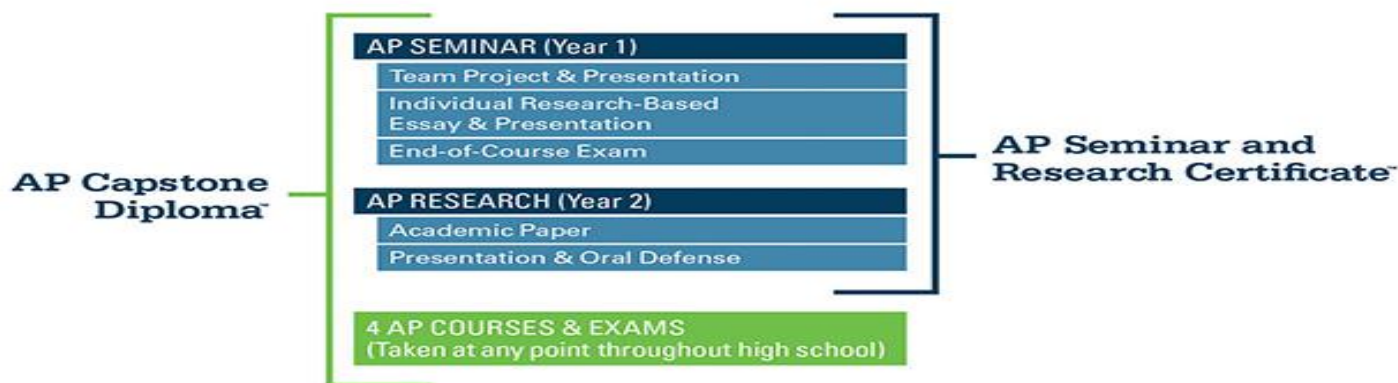
Students have opportunities to take many different [Advanced Placement \(AP\)](#) Courses in high school. [AP](#) courses in the Program of Studies are identified with an "AP" in front of the course name. [AP](#) courses follow a strict set of standards set by the College Board. The College Board is a not-for-profit membership organization committed to excellence and equity in education. Their mission is to connect students to college success and opportunity. All students taking AP courses should plan to spend at least 45 minutes per course on nightly homework assignments.

Source: [College Board Website](#)

## AP Capstone Program

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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 and AP Research courses can be found by clicking [here](#).



## AP + Project Lead the Way Program

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The AP + Project Lead the Way (PLTW) program is a new opportunity for students to earn recognition in engineering. As shown in the table below, QCHS's Engineering Pathway consists of successful completion of 3 courses from the approved list, including at least 1 AP course and 1 PLTW course, and the accompanying end-of-course exams. To earn recognition, students must earn at least a 3 on the AP exam(s) and a score of Proficient or higher on the PLTW End-of-Course (EOC) assessment(s).

Steps to attain designation	Approved Courses	Engineering Pathway
1. Complete 3 approved courses: <ul style="list-style-type: none"> <li>• 1 AP Course;</li> <li>• 1 PLTW;</li> <li>• and one other course from either list</li> </ul>	Advanced Placement	AP Biology AP Calculus AB AP Calculus BC AP Chemistry AP Environmental Science AP Physics 1 AP Physics 2 AP Statistics
2. Pass the end-of-course exams <ul style="list-style-type: none"> <li>• Score at least a 3 on AP Exam(s)</li> <li>• Score Proficient or better on PLTW End-of-course exam(s)</li> </ul>	Project Lead the Way	Introduction of Engineering Design Principles of Engineering Civil Engineering Architecture Computer Integrated Manufacturing Digital Electronics Environmental Sustainability

# Cumulative Grade Point Averages

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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.

As shown in the table below, the weighted GPA includes an additional quarter point awarded for all Honors, Project Lead the Way (PLTW) and [Dual Enrollment](#) (DE) courses taught by a community college professor. An additional half point is awarded for all [AP](#) courses. 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; due to the availability of AP exam results, seniors will not be eligible for this weighting. To receive weighting additions, students must earn at least a "C" in the course.

Grade	Numeric Range	GPA			
		College Prep	Honors, PLTW and DE	AP	AP with Passing AP Exam Grades 9-11 Only
A	90 - 100	4.0	4.25	4.50	4.75
B	80 - 89	3.0	3.25	3.50	3.75
C	70 - 79	2.0	2.25	2.50	2.75
D	60 - 69	1.0	1.0	1.0	1.0
F	50 -59	0.0	0.0	0.0	0.0

# Cyber Courses and Blended Learning

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For motivated, self-directed, focused learners, [cyber](#) and blended learning may be a possibility. [Cyber](#) courses are offered fully online while blended learning courses allow students to interact with the classroom environment in a face-to-face setting, online, or a combination of both. Course that will potentially be offered in a cyber or blended format 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](#) and online world language partners.

For the 2018-2019 school year, the following World Language courses will be supported in a cyber format:

American Sign Language – Level 3

Arabic – Level 3

French – Levels 3

Please note that students who request a cyber course outside of the regular schedule must reimburse the district for the course fees and any textbooks that are needed to complete the course. If the student withdraws from the course outside of the add/drop window that particular Partner defines, no reimbursement will be provided.

# Dual Enrollment Opportunities

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Quakertown Community 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 media within the high school day. QCHS supports dual enrollment as codified in QCSD school board policy 20\*

## Grading

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

- Report Card will include Percentage and Letter Grade (A, B, C, D, F)
- Lowest Percentage Grade for a Marking Period = 50%
- Grades cannot be changed after the next marking period has ended with the exception of incompletes.
- All assessments must be aligned to Standards. Teachers are required to assess student progress toward individual skills/learning targets and communicate with students about their status to ensure learning.
- Homework must be consistent by course. Can count no more than 20%. Homework is considered as practice, preview or completion.
- Late Work: Guidelines must be consistent by department. Nothing will be accepted after the marking period has ended with the exception of incompletes. 10% maximum deduction per day for graded assignments
- Student work to improve knowledge/skills: may only be done within two marking periods; teachers will provide multiple assessment opportunities, using multiple modalities, to determine a student's understanding/skill level and to assign a final grade; if a reassessment is provided to change a grade on a given assessment, the highest score that can be earned is a 75%.
  - Guidelines must be consistent by department
    - Example 1: On a 100 point assessment, a student earns 65 points (65%). The student reassesses and earns 80 points (80%). The score recorded in the gradebook is 75 points (75%).
    - Example 2: On a 70 point assessment, a student earns 42 points (60%). The student reassesses and earns 68 points (97%). The score recorded in the gradebook is 75% of the 70 points, or  $.75 \times 70 = 52.5$  points.
    - Example 3: On a 50 point assessment, a student earns 25 points (50%). The student reassesses and earns 35 points (70%). The score recorded in the gradebook is 35 points.
- Only one score is required to be recorded for a given assessment.
- Final grade for the year will be based on average of the marking period percentages and final exam score
- Final Exams must be administered in all courses, must be common by course and level, and count as 10% of final grade for the year
- It is understood that teachers may need to adapt the components of this grading policy to conform to IEP or 504 requirements for students with special needs.
- Teachers have the flexibility to use their professional judgement in applying these guidelines in situations where a student is experiencing a hardship.

## Honor Roll

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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 unweighted [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 \(NCAA\)](#)

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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.

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

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**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. Schedules will be provided to students and parents at least one week prior to the close of the 2017-18 school year. Schedules will be considered final July 1 after which only emergency schedule changes will be made with administrator approval. For VHS courses, students must decide within 3 days after the start of the course if they would like to drop a course. Schedule changes may be noted on transcripts by a "W".**

## Scheduling Parameters

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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 5.0 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

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

1. Pass an approved summer school course in the [failed](#) subject area prior to the opening of the next school year.
2. 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](#)

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

# 9<sup>th</sup> Grade Program of Study



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## Required Core Academic Courses

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### 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 (0.5 Credit)

### Physical Education

- Foundations of Wellness and Fitness (0.5 Credit)

### Science

- Biology Honors
- General Science, C

### Social Studies

- AP Human Geography
- World Cultures and Geography, C
- World Cultures and Geography Honors, C

### Arts (Art, Dance, Music & Theater)

All students must take 0.5 credits before graduation.

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## General Interest Courses

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### World Language

#### German Courses

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

#### Mandarin Courses

- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3 Honors

### World Language (continued)

#### Spanish Courses

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

### Music

- Freshman Chorus
- Freshman Symphonic Band
- Freshman Symphonic Band and Freshman Chorus

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## 9<sup>th</sup> Grade Specialized Interest Courses

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### Art

- AP Art History
- Intro to Art (0.5 Credit)
- 2-Dimensional Art (0.5 Credit)
- Advanced 2-Dimensional Art (0.5 Credit)
- 3-Dimensional Art (0.5 Credit)
- Advanced 3-Dimensional Art (0.5 Credit)
- Digital Design (0.5 Credit)
- Advanced Digital Design (0.5 Credit)

### Business and Information Technology

- Accounting 1 (0.5 Credit)
- Accounting 2 Honors (0.5 Credit)
- Business Law (0.5 Credit)
- Entrepreneurship (0.5 Credit)
- International Business (0.5 Credit)
- Introduction to Business (0.5 Credit)
- Personal Finance (0.5 Credit)
- Sports Entertainment & Hospitality Marketing (0.5 Credit)
- Web Development and Design (0.5 Credit)

### Computer Science

- AP Computer Science A – (JAVA)
- AP Computer Science Principles
- Computer Programming (C++)

### Dance

- Fundamentals of Dance (0.5 Credit)
- Dance Composition (0.5 Credit)
- Dance Seminar (0.5 Credit)
- Dance Techniques (0.5 Credit)
- Advanced Technique (0.5 Credit)

### English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (0.5 Credit)
- Fundamentals of Composition (0.5 Credit)
- Public Speaking (0.5 Credit)
- Introduction to Theater Arts (0.5 Credit)
- Advanced Theater Arts (0.5 Credit)
- Journalism (0.5 Credit)
- Advanced Journalism (0.5 Credit)

### Family and Consumer Science

- 21st Century Leadership (0.5 Credit)
- Fashion Design 1(0.5 Credit)
- Advanced Fashion Design (0.5 Credit)
- Chefs 1 (0.5 Credit)
- Chefs 2 (0.5 Credit)
- Personal Growth (0.5 Credit)

### Science

- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- Earth and Oceanic Science (0.5 Credit)
- Environmental Science
- Forensics (0.5 Credit)
- The Science of Kinesiology (0.5 Credit)
- Space and Atmospheric Science (0.5 Credit)

### Social Studies

- Psychology (0.5 Credit)
- Sociology and Anthropology (0.5 Credit)

### Technological Studies

- Project Lead the Way ([Pre-requisites](#) \* )
- Introduction to Engineering Design
- Principles of Engineering

### TV News / Video

- TV News/Video Editing, Level 1





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## Required Core Academic Courses

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### English

- World Literature
- World Literature Honors

### Mathematics

- Algebra 1
- Algebra 1B
- Algebra 2
- Algebra 2 Honors
- Algebra 2A
- AP Calculus AB
- AP Calculus BC
- AP Probability and Statistics
- Calculus Honors
- Geometry
- Precalculus
- Precalculus Honors

### Physical Education

- Movement and Exercise Science (0.5 Credit)

### Science

For students who are taking General Science 9:

- Biology, C
- Biology Honors, C

For students who are taking Biology Honors:

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

### Social Studies

- AP World History
- World History, C
- World History Honors, C

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## General Interest Courses

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### World Language

German Courses

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

Mandarin Courses

- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3, Honors
- Mandarin 4, Honors

### World Language (continued)

Spanish Courses

- Spanish 1
- Spanish 2
- Spanish 3
- Spanish 3 Honors
- Spanish 4 Honors

### Music

- AP Music Theory
- Symphonic Band
- Senior High Choir
- Senior High Choir/Symphonic Band
- Pop, Rock, & Jazz

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# 10<sup>th</sup> Grade Specialized Interest Courses

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## AP Capstone

- AP Seminar
- AP Research

## Art

- AP Art History
- AP Studio Art
- Intro to Art (0.5 Credit)
- 2-Dimensional Art (0.5 Credit)
- Advanced 2-Dimensional Art (0.5 Credit)
- 3-Dimensional Art (0.5 Credit)
- Advanced 3-Dimensional Art (0.5 Credit)
- Digital Design (0.5 Credit)
- Advanced Digital Design (0.5 Credit)

## Business and Information Technology

- Accounting 1 (0.5 Credit)
- Accounting 2 Honors (0.5 Credit)
- Business Law (0.5 Credit)
- Entrepreneurship (0.5 Credit)
- International Business (0.5 Credit)
- Introduction to Business (0.5 Credit)
- Personal Finance (0.5 Credit)
- Sports Entertainment & Hospitality Marketing (0.5 Credit)
- Web Development and Design (0.5 Credit)

## Computer Science

- AP Computer Science A – (JAVA)
- AP Computer Science Principles
- Computer Programming (C++)

## Dance

- Fundamentals of Dance (0.5 Credit)
- Dance Composition (0.5 Credit)
- Dance Seminar (0.5 Credit)
- Dance Techniques (0.5 Credit)
- Advanced Technique (0.5 Credit)

## English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (0.5 Credit)
- Fundamentals of Composition (0.5 Credit)
- Public Speaking (0.5 Credit)
- Introduction to Theater Arts (0.5 Credit)
- Advanced Theater Arts (0.5 Credit)
- Journalism (0.5 Credit)
- Advanced Journalism (0.5 Credit)

## Family and Consumer Science

- 21st Century Leadership (0.5 Credit)
- Fashion Design 1(0.5 Credit)
- Advanced Fashion Design (0.5 Credit)
- Chefs 1 (0.5 Credit)
- Chefs 2 (0.5 Credit)
- Personal Growth (0.5 Credit)

## Science

- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- Earth and Oceanic Science (0.5 Credit)
- Environmental Science
- Forensics (0.5 Credit)
- The Science of Kinesiology (0.5 Credit)
- Space and Atmospheric Science (0.5 Credit)

## Social Studies

- AP Economics
- AP European History
- AP Psychology
- AP World History
- Psychology (0.5 Credit)
- Sociology and Anthropology (0.5 Credit)

## Technological Studies

Project Lead the Way ([Pre-requisites](#) \* )

- Introduction to Engineering Design
- Principles of Engineering
- Civil Engineering and Architecture \*
- Computer Integrated Manufacturing \*
- Digital Electronics \*
- Engineering Design and Development \*
- Environmental Sustainability \*

## TV News / Video

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

## Special Programs

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

- Interpersonal Communication
- Introduction to Psychology
- Introduction to Sociology
- Introduction to the Administration of Criminal Justice

## Virtual High School

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

# 11<sup>th</sup> Grade Program of Study



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## Required Core Academic Courses

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### English

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

### Health and Physical Education

- Movement and Exercise Science

### Mathematics

- Algebra 2
- Algebra 2 Honors
- Algebra 2A
- AP Calculus AB
- AP Calculus BC
- AP Probability and Statistics
- Calculus Honors
- Geometry
- Precalculus
- Precalculus Honors
- Probability and Statistics

### Science

- Introduction to Chemistry (0.5 Credit)
- Chemistry
- Chemistry Honors
- Introduction to Physics (0.5 Credit)
- Physics
- AP Physics 1

### Social Studies

- AP United States History
- United States History II
- United States History II Honors

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## General Interest Courses

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### World Language

#### German Courses

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

#### Mandarin Courses

- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3, Honors
- Mandarin 4, Honors

### World Language (continued)

#### Spanish Courses

- AP Spanish
- Spanish 1
- Spanish 2
- Spanish 3
- Spanish 3 Honors
- Spanish 4 Honors

### Music

- AP Music Theory
- Symphonic Band
- Senior High Choir
- Senior High Choir/Symphonic Band
- Pop, Rock, & Jazz

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# 11<sup>th</sup> Grade Specialized Interest Courses

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## AP Capstone

- AP Seminar
- AP Research

## Art

- AP Art History
- AP Studio Art
- Intro to Art (0.5 Credit)
- 2-Dimensional Art (0.5 Credit)
- Advanced 2-Dimensional Art (0.5 Credit)
- 3-Dimensional Art (0.5 Credit)
- Advanced 3-Dimensional Art (0.5 Credit)
- Digital Design (0.5 Credit)
- Advanced Digital Design (0.5 Credit)

## Business and Information Technology

- Accounting 1 (0.5 Credit)
- Accounting 2 Honors (0.5 Credit)
- Business Law (0.5 Credit)
- Entrepreneurship (0.5 Credit)
- International Business (0.5 Credit)
- Introduction to Business (0.5 Credit)
- Personal Finance (0.5 Credit)
- Sports Entertainment & Hospitality Marketing (0.5 Credit)
- Web Development and Design (0.5 Credit)

## Computer Science

- AP Computer Science A – (JAVA)
- AP Computer Science Principles
- Computer Programming (C++)

## Dance

- Fundamentals of Dance (0.5 Credit)
- Dance Composition (0.5 Credit)
- Dance Seminar (0.5 Credit)
- Dance Techniques (0.5 Credit)
- Advanced Technique (0.5 Credit)

## English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (0.5 Credit)
- Fundamentals of Composition (0.5 Credit)
- Public Speaking (0.5 Credit)
- Introduction to Theater Arts (0.5 Credit)
- Advanced Theater Arts (0.5 Credit)
- Journalism (0.5 Credit)
- Advanced Journalism (0.5 Credit)

## Family and Consumer Science

- 21st Century Leadership (0.5 Credit)
- Fashion Design 1(0.5 Credit)
- Advanced Fashion Design (0.5 Credit)
- Chefs 1 (0.5 Credit)
- Chefs 2 (0.5 Credit)
- Personal Growth (0.5 Credit)

## Science

- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- Earth and Oceanic Science (0.5 Credit)
- Environmental Science
- Forensics (0.5 Credit)
- The Science of Kinesiology (0.5 Credit)
- Space and Atmospheric Science (0.5 Credit)

## Social Studies

- AP Economics
- AP European History
- AP Psychology
- AP World History
- Psychology (0.5 Credit)
- Sociology and Anthropology (0.5 Credit)

## Technological Studies

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

## TV News / Video

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

## Special Programs

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

- Interpersonal Communication
- Introduction to Psychology
- Introduction to Sociology
- Introduction to the Administration of Criminal Justice

### Virtual High School

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

# 12<sup>th</sup> Grade Program of Study



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## Required Core Academic Courses

---

### English

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

### Health and Physical Education

- Movement and Exercise Science

### Mathematics

- Algebra 2
- Algebra 2 Honors
- Algebra 2A
- AP Calculus AB
- AP Calculus BC
- AP Probability and Statistics
- Calculus Honors
- Precalculus
- Precalculus Honors
- Probability and Statistics

### Science

(Must complete a course in Biology, Chemistry, and Physics)

- AP Computer Science A
- AP Computer Science Principles
- AP Physics 1
- AP Physics 2
- Chemistry
- Chemistry Honors
- Introduction to Chemistry (0.5 Credit)
- Introduction to Physics (0.5 Credit)
- Physics

Students who completed Biology, Chemistry, and Physics may satisfy the remaining science coursework by choosing 1 credit science or computer science elective.

### Social Studies

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

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## General Interest Courses

### World Language

German Courses

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

Mandarin Courses

- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3, Honors
- Mandarin 4, Honors

### World Language (continued)

Spanish Courses

- AP Spanish
- Spanish 1
- Spanish 2
- Spanish 3
- Spanish 3 Honors
- Spanish 4 Honors

Additional World Language courses available online:

- Language Choice, C (only): \_\_\_\_\_

### Music

- AP Music Theory
- Symphonic Band
- Senior High Choir
- Senior High Choir/Symphonic Band
- Pop, Rock, & Jazz

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# 12<sup>th</sup> Grade Specialized Interest Courses

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## AP Capstone

- AP Research

## Art

- AP Art History
- AP Studio Art
- Intro to Art (0.5 Credit)
- 2-Dimensional Art (0.5 Credit)
- Advanced 2-Dimensional Art (0.5 Credit)
- 3-Dimensional Art (0.5 Credit)
- Advanced 3-Dimensional Art (0.5 Credit)
- Digital Design (0.5 Credit)
- Advanced Digital Design (0.5 Credit)

## Business and Information Technology

- Accounting 1 (0.5 Credit)
- Accounting 2 Honors (0.5 Credit)
- Business Law (0.5 Credit)
- Entrepreneurship (0.5 Credit)
- International Business (0.5 Credit)
- Introduction to Business (0.5 Credit)
- Personal Finance (0.5 Credit)
- Sports Entertainment & Hospitality Marketing (0.5 Credit)
- Web Development and Design (0.5 Credit)

## Computer Science

- AP Computer Science A – (JAVA)
- AP Computer Science Principles
- Computer Programming (C++)

## English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (0.5 Credit)
- Fundamentals of Composition (0.5 Credit)
- Public Speaking (0.5 Credit)
- Introduction to Theater Arts (0.5 Credit)
- Advanced Theater Arts (0.5 Credit)
- Journalism (0.5 Credit)
- Advanced Journalism (0.5 Credit)

## Dance

- Fundamentals of Dance (0.5 Credit)
- Dance Composition (0.5 Credit)
- Dance Seminar (0.5 Credit)
- Dance Techniques (0.5 Credit)
- Advanced Technique (0.5 Credit)

## Family and Consumer Science

- 21st Century Leadership (0.5 Credit)
- Fashion Design 1(0.5 Credit)
- Advanced Fashion Design (0.5 Credit)
- Chefs 1 (0.5 Credit)
- Chefs 2 (0.5 Credit)
- Personal Growth (0.5 Credit)

## Field Study

- Field Study

## Health and Physical Education

- Fit PLUS (0.5 Credit)
- Team Works (0.5 Credit)
- Anatomy and Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics 1
- AP Physics 2
- Earth and Oceanic Science (0.5 Credit)
- Environmental Science
- Forensics (0.5 Credit)
- The Science of Kinesiology (0.5 Credit)
- Space and Atmospheric Science (0.5 Credit)

## Social Studies

- AP Economics
- AP European History
- AP Psychology
- AP United States History
- AP World History
- Psychology (0.5 Credit)
- Sociology and Anthropology (0.5 Credit)

## Technological Studies

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

## TV News / Video

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

## Special Programs

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

- Interpersonal Communication
- Introduction to Psychology
- Introduction to Sociology
- Introduction to the Administration of Criminal Justice
- Medical Career Pathways Program

## Virtual High School

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

# Course Descriptions

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## AP Capstone

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### **AP Seminar**

[AP Seminar](#) is the first of a two-course sequence that leads to the opportunity for students to earn an AP Capstone 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. Due to the nature of the Team Project and Presentation, students who do not meet the full expectations of the course during the first semester will be removed from the course so they do not compromise the success of other students; if students are failing the course at that time, they will receive a WF (Withdraw - Fail) on their transcript. 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](#).

### **AP Research (Prerequisite: AP Seminar)**

[AP Research](#) is the second course in a two-course sequence that leads to the opportunity for students to earn an AP Capstone Diploma. AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question. Students will further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of approximately 4000-5000 words and a presentation with an oral defense.

## ART

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### **2 Dimensional Art**

This course is designed to give students a wide variety of art making experiences and allows students to explore various visual art forms and techniques through the elements and principles of design in Drawing, Painting and Mixed Media. Students will produce original artworks and learn skills/techniques associated with a variety of drawing materials, paints, images, found objects and papers. Both classic and contemporary methods will include collage, drawing, painting, mixing, assemblage, cutting, and pasting, etc.

*\*This course is a prerequisite to Advanced 2-Dimensional Art.*

### **3 Dimensional Art**

This course is designed to introduce and extend student understanding to various skills, processes, tools, and materials of 3D design and sculptural elements. Students can expect to complete three dimensional works of art utilizing these techniques and centering on functional as well as non-functional concepts in the sculptural realm.

Areas of design that will be creatively explored are Ceramics, Fibers, Jewelry Making/Metalsmithing and Glass.

*\*This course is a prerequisite to Advanced 3-Dimensional Art.*

### **Advanced 2- Dimensional Art**

This course will continue to expand and refine student experiences, which will allow students to explore various visual art forms and techniques through the elements and principles of design in Drawing, Painting and Mixed Media. Traditional techniques are taught along with more experimental and differentiated projects. Students will build upon the techniques and skills acquired in 2-Dimensional Art and continue working with a variety of drawing materials, paints, images, found objects and papers. Classic and contemporary methods will include collage, drawing, painting, mixing, assemblage, cutting, and pasting. *Prerequisite 2-Dimensional Art*

*\*May be repeated for credit.*



### **Advanced 3-Dimensional Art**

This course will enable students to have a better understanding of form and space, as well as, using creative problem solving skills to explore personal style and expression. Students will produce a body of work with an emphasis on design concepts. Fibers, Ceramics, Jewelry Making/Metalsmithing and Glass are art materials that students will continue to explore. Students will be encouraged to stretch the limits of their work to demonstrate their technical and conceptual maturity. *Prerequisite 3-Dimensional Art*

*\*May be repeated for credit.*

### **Advanced Digital Design**

This course extends students' knowledge and experience in working with digital design media, such as photography and Adobe Design software. This visual communication course invites students to take graphic design, illustration, and photography to the next level as they combine their growing knowledge of these media. This course is ideal for students who are interested in deepening their skills with industry standard design software and stretching their imaginations for the 21<sup>st</sup> century innovative economy. Because this course is designed to extend and enrichment a foundation of media knowledge, it is suggested that students take this advanced course after taking *Digital Design* or have personal, extensive knowledge outside of the classroom.

*\*May be repeated for credit.*

### **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 Studio Art**

This course is designed for students that are interested in preparing advanced level portfolio quality work and are seriously interested in the practical experience of art or pursuing art studies after graduation. It is expected that these students be highly motivated and committed to their art activities and production in order for them to meet the requirements of their potential college or art school choices. Sketchbook assignments outside of class are an important part of the student's development. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year. The AP Studio Art Program consists of three portfolios: 2-D Design, 3-D Design, and Drawing- corresponding to common college foundation courses.

*\*It is strongly suggested that students take Intro to Art, 2D Art, 3D Art and Advanced levels of both 2D and 3D Art prior to AP Studio Art*

### **Digital Design**

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 digital designs. Skills learned in this course also prepare students to create professional quality visuals for future academic or business presentations.

*\*This course is a prerequisite to Advanced Digital Design*

### **Introduction to Art**

This is a foundation course which develops student skills in art making and creative thinking. Through drawing, painting and ceramics, students will develop technical art making skills in both classic and contemporary methods while incorporating self-expression and utilizing the elements and principles of design.



## **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**

In this course, students will learn how accounting is used for operating decisions in a business and will refer to Apple Computer's annual report to apply the principles learned. Additionally, students will enhance their knowledge of the accounting cycle by doing the accounting for a retail merchandising business organized as a corporation diving deeper than the type of accounting done in Accounting 1. Accounting software and an online business simulation will be used. 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 explore the foundations of business law and the application of legal concepts to everyday life. Topics covered include contracts, criminal law, environmental law, family law, and consumer protection. Students will have the opportunity to analyze case studies and legal briefs with the goal of increasing knowledge of legal rights and responsibilities.

## **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.

## **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, and Sports & Entertainment Marketing. It is strongly recommended for all students 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.

## Web Development and Design

Web Development and Design is a project-based course that teaches the foundations of web site design using a variety of web tools and applications. This course provides an introduction to the essentials of web design from planning to publishing. Students will learn the basics of HTML coding and JavaScript, design/layout, site navigation and interactivity, culminating in the creation of a fully functional website and e-portfolio.

## DANCE

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### Advanced Technique Course Description

Students will continue to study the concepts and techniques fundamental to ballet, jazz, and modern dance with an emphasis on increasing movement capabilities and personal expression. Students will continue to explore advanced concepts in ballet, jazz, and modern techniques as well as cultural and historical influences.

### Dance Composition

Students will study dance composition through multiple lenses including improvisation, performance, form & amp; content. Students will utilize each other as critic, performer, and director throughout the class. Exercises will focus on the use of space, general stage direction, timing, musical selection and emotion.

### Dance Seminar

Dance Seminar explores dance in the world today and also reviews major works, figures and trends responsible for shaping dance as an art. This course involves lecture, discussion, and movement. The information and skills learned, including dance history, will strengthen the student's ability to perform and provide a general understanding of rehearsal and performance.

### Dance Technique

Students will study the overall concepts and techniques fundamental to ballet, jazz and modern dance with an emphasis on developing movement capabilities and increasing personal expression. Students will explore various jazz and modern styles while studying ballet technique as a basis for movement. Students will examine cultural and historical influences.

### Fundamentals of Dance

Fundamentals of Dance provides students with an introduction to the principles of movement and basic performance and choreography techniques. Students will study vocabulary, progression and historic cultural development of various purposes for dance including social, fitness, art, entertainment and cultural. The course is designed to be a performance based course which requires active participation by students. Students are responsible for purchasing materials required for the course including proper clothing and footwear.

## DUAL ENROLLMENT

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### [Interpersonal Communication](#)

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

This introductory communication skills course helps students develop competencies in diverse social and professional communication. Students engage in activities and assignments that focus on diversity, perception, listening skills and conflict management skills. Source: <http://www.bucks.edu/catalog/courses/social/economics/>

### [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/>

## **Introduction to the Administration of Criminal Justice**

This course is offered through: [Bucks County Community College](http://www.bucks.edu/catalog/courses/social/justice/).

This course is an introductory survey of the evolution, principles, concepts, and practice of the theory and nature of the criminal justice system including police, courts, and corrections systems.

Source: <http://www.bucks.edu/catalog/courses/social/justice/>

## **Medical Career Pathways Program**

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.

# ENGLISH

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## **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 examine multiple interpretations and evaluate impact. In Unit 5 – Friendship, Alienation, and Controversy in Literature, students will explore the significance of setting, conflict, and character motivation in John Steinbeck's novella *Of Mice and Men*. They will extrapolate from a short passage the larger themes and literary elements in order to interpret the author's purpose. 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 addition, the classic novel, *The Catcher in the Rye* will be studied. 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 examine multiple interpretations and evaluate the impact of each director's creative choices. 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.

## **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, 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.

### **Creative Writing 1, 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.

### **Creative Writing 2**

Creative Writing 2 provides students the opportunity to write a draft of a novella or memoir. The course takes students through the process of concept development, writing, editing, and promotion. Students will be asked to create an original book jacket to accompany their written piece and will also have the opportunity to share their work with classmates for feedback.

### **English Literature and Composition, C**

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.

### **Introduction to Theater Arts**



Introduction to Theater Arts is designed to introduce essential skills and understandings in drama and different areas of theater production. Students will gain an awareness and appreciation for various aspects of theater arts and will learn the skills needed to perform, write, research and analyze a variety of dramatic scenes and plays.

### **Advanced Theater Arts** ([Prerequisite](#): Introduction to Theater Arts)

This semester long class focuses upon intermediate theater topics designed to build upon the skills developed in Introduction to Theater Arts. The focus of this class will be on the scripted word, and how the actor interprets and presents the words of others on stage. Additionally, students will be immersed into all areas of play production and will collaborate on the production of several drama activities (plays, improv. nights, monologues, musicals, etc). Advanced Theater Arts may be repeated for credit.

### **Journalism 1, 2, 3 and 4**

In addition to examining the roles and responsibilities of the press, students in Journalism 1 will practice writing the kinds of articles commonly found in major newspapers: news, features, editorials and sports. Additionally, students will employ principles of newspaper design, brainstorm story ideas, interview sources, conduct research, and compose original, publishable stories for the school newspaper. Student will adapt written stories to record for Quakertown Network Radio. In Journalism 2, 3, and 4 students will refine the reporting, writing, and designing skills developed in Journalism 1.

### **Public Speaking**

In this presentation-based course, students will explore the fundamental principles of effective communication, voice production, and use of speaking tools. 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 consistently 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 brown-bag speech, demonstrations speech, extemporaneous speaking, and TED talk speeches.

### **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 an argumentative 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. [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 an argumentative essay. In Unit 2 – Cultural Perspectives, students will examine the variety of voices other writers and speakers use depending on audience, 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 the 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.

## FAMILY AND CONSUMER SCIENCE

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

### **21st Century Leadership**

Are leaders born or made? 21<sup>st</sup> Century Leadership will help students develop their leadership potential through an examination of personal qualities and skills necessary to be a leader. In the workplace, community, and family, certain qualities are essential for success. Sean Covey's *The 7 Habits of Highly Effective Teens* based on his father's best-selling book *The 7 Habits of Highly Effective People* forms the basis for exploring your individual strengths and creating a plan aimed at bringing out your leadership style. Additionally, we will explore project-based learning and activities designed to unlock the power of your right brain.

### **Chefs 1**

Chefs 1 blends theory and practice as students are introduced to food safety and industry standards while working in an actual hands-on lab. Students will learn basic techniques such as kitchen safety, knife skills and mise en place. Through a hands-on experience, students will learn how to prepare stocks, sauces, vegetables, starches, and poultry.

### **Chefs 2** ([Prerequisite](#): Chefs 1)

In Chefs 2, students will expand their culinary knowledge by learning advanced culinary techniques. The course will begin by introducing baking and the pastry arts. Students will learn about the precision of baking and learn how to create cookies, quick breads, pastries, mousses, and decorated cakes. The course will also explore advanced savory techniques such as preparing and cooking meats like beef and pork. Students will explore breakfast cookery and learn how to make fresh pizza and pasta. Finally, students will learn how to apply their skills to develop custom recipes.

### **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.

### **Advanced Fashion Design**

This course is designed for the student who desire 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 including tailoring. Students, with guidance from the instructor, will select their own sewing projects and are expected to purchase all materials for construction of garments. This course may be repeated multiple times for credit.

### **Personal Growth, C**

This class is designed to help students enhance the skills they need to make a successful transition from adolescence into adulthood, marriage, and family life. Students will explore personality, attitude, values, maturity communication skills and relationships. The relationship management unit offers students the opportunity to participate in a parenting simulation using RealCare Babies.

## FIELD STUDY

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### **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

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## **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.

## **Physical Education**

### **Foundations of Wellness and Fitness, C**

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.

### **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.

### **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.

### **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

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## **ALGEBRA**

### **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**

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 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.

## **GEOMETRY**

### **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.

## **[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 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. It is recommended that students take Computer Programming 1 and 2 prior to taking this course.

\*[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 Computer Science Principles**

AP Computer Science offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and the impacts of computing. AP Computer Science will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. The course follows the curriculum framework prepared by the College Board for [Advanced Placement](#) Computer Science Principles. Students successfully completing this course qualify to take the [AP](#) exam.

## **AP Probability and Statistics**

AP Probability and Statistics extends students' study of statistics to include the study of 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**

The course begins with a quick review of trigonometry. Limits and continuity are introduced. The "tangent" problem is explored as an application of the derivative. In order to give the students an appreciation for the use of derivative rules (product, quotient, chain, power, and trigonometry), basic proofs of these rules are provided. Curve sketching (using first and second derivative tests), extreme problems, and use of differential approximations are present as applications. The definite integral is studied using the "area problem." Some basic computations using definite and indefinite integrals are promoted.

## **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.

## **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.

## **Probability and Statistics**

Probability and Statistics is designed for the college-bound student who has demonstrated success in Algebra 2 and wishes to continue to explore a large range of topics with an emphasis on “real world” applications such as games of chance, random population, and actuarial science. Students will regularly apply the tools of technology including graphing calculators and computers to solve problems. They will be challenged through critical thinking exercises, participating in various group and individual activities that will enhance their mathematical reasoning ability and communication skills.

# **MUSIC**

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## **Freshman 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.

## **Freshman 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.

## **Freshman Concert Band and Freshman 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.

## **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 QCHS Jazz Lab.

## **Symphonic Band and Senior High Choir**

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.

## **Jazz Ensemble**

Jazz Ensemble is comprised of a select group of students who excel in instrumental music. Students will work with pieces of music that require an advanced level of musicianship and skill on their instrument. Students will develop and improve their instrumental abilities, while also working together to produce cohesive and coherent music. The course is held after school hours and students will receive 0.25 credits each year for their participation. Students must be enrolled in Concert Band in order to be eligible to audition for the QCHS Jazz Ensemble.

## **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. Students must be enrolled in Senior High Choir in order to be eligible to audition for the QCHS Varsity Singers.

## **[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.

## **Pop, Rock and Jazz**

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.

# **SCIENCE**

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## **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. Additional time during the Intervention/Enrichment period may be used to supplement laboratory activities and will be required for course credit.

### **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. 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. Additional time during the Intervention/Enrichment period may be used to supplement laboratory activities and will be required for course credit.

### **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. Additional time during the Intervention/Enrichment period may be used to supplement laboratory activities and will be required for course credit.

### **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. Additional time during the Intervention/Enrichment period may be used to supplement laboratory activities and will be required for course credit.

### **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. Additional time during the Intervention/Enrichment period may be used to supplement laboratory activities and will be required for course credit.

### **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. QCSD requires that students are proficient on the Keystone Exam for this course as a graduation requirement.



## **Biology Honors, C**

The Biology 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 as well as the Ecology content from General Science 9. 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 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. Students enrolling in 9<sup>th</sup> Grade must be on pace to complete Algebra 2 and Geometry by the end of grade 10. QCS D requires 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 that will be studied include Structure of Matter, States of Matter, Reaction Types, Stoichiometry, Equilibrium and Reaction Rates, Thermochemistry, and Descriptive Chemistry. Emphasis will be 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 lab techniques, while utilizing report writing, mathematical calculations, and analysis of data to express results for problem analysis.

\*For students who would like to take this course as a cyber option, they must participate in approximately 17 lab experiences in order to earn the Honors credit. Otherwise, students may enroll in this course without the lab but will not earn Honors credit for the course. Honors credit will only be awarded for students who complete the face-to-face lab expectations.

## **Earth and Oceanic Science**

Earth and Oceanic Science is a course that will support students' investigation into the relationships among themselves, Planet Earth, and its oceans. Emphasis will be placed on geologic and oceanographic relationships, as well as on various topics of geology and oceanography. Geology topics include: interpretation of the Earth's structure, rock and mineral formations and study of their constant change under the influence of streams, wind, glaciers, volcanism, physical aspects of the environment, internal and tectonic activity, and mapping the Earth's surface. Oceanographic topics of study include: an introduction to the physical, chemical, biological, and geological processes and interactions in the oceans, the history of oceanography, charts and navigation, the physical and chemical properties of seawater, marine geology, beach processes, theory of continental drift, air-sea interactions, waves and ocean circulation, tides, plant and animal life in the seas, and marine ecology. Students will use knowledge attained in this course to focus on the potential and realistic possibilities of human impact on our world.

## **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.

## **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

## **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.

## **The Science of Kinesiology**

The primary sciences involved in human movement will be introduced in this course. The students will explore the areas of exercise physiology, biomechanics and motor learning. Applications to careers in kinesiology, health, healthcare, and the fitness industries will be examined.

## **Space and Atmospheric Science**

This course will develop students' understanding of the relationships among the Earth, its atmosphere, and the broader universe. This course will develop students' skills in critical reading, algebra, geometry, critical thinking, and inquiry. Students will use knowledge attained in this course to focus on the potential and realistic possibilities of human impact on our world. By analyzing and interpreting each area of study, they will become aware of the vital relationship between themselves, the environment, earth, atmosphere and space. Atmospheric science topics include: principles of atmospheric structure, development, evolution, and change, principles of weather (data acquisition instruments, phenomena, and patterns), weather data, and the creation and interpretation of weather maps. Space Science topics include: basic observational astronomy, the historical development and evolution of astronomy, the physical laws that govern the universe, spectroscopy, telescopes and the study of light, planetary science, the origin and evolution of the solar system, stellar evolution and life cycles, galactic evolution and cosmology.

# SOCIAL STUDIES

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## **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.

## **World Cultures and Geography, C**

World Cultures and Geography focuses on world geography, emphasizing world regions. It includes the study of fundamental geographic skills and tools, absolute and relative location of people and places, physical and cultural characteristics of place, adaptation to environments, migration and settlement patterns, and the relationship of geography, politics, and economics. Students will continue to learn fundamental geographic concepts as applied to their daily lives.

## **World Cultures and Geography Honors, C**

World Cultures and Geography Honors focuses on world geography, emphasizing world regions. It includes the study of fundamental geographic skills and tools, absolute and relative location of people and places, physical and cultural characteristics of place, adaptation to environments, migration and settlement patterns, and the relationship of geography, politics, and economics. Students will continue to learn fundamental geographic concepts as applied to their daily lives. Honors students will be expected to read more complex texts (primary and secondary sources) inside and outside of class as well as introduce independently researched ideas, concepts and resources within teacher created learning experiences.

## **[AP Economics](#)**

[AP](#) Microeconomics and [AP](#) Macroeconomics are each equivalent to a half-year, semester course. [AP](#) Economics will be taught with an integrated, full-year approach to support student potential success on both the [AP](#) Microeconomics and [AP](#) Macroeconomics exams taken in the Spring.

[AP](#) Microeconomics provides students with a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy.

[AP](#) Macroeconomics introduces students to fundamental economic concepts such as scarcity and opportunity costs. Students understand the distinction between absolute and comparative advantage and apply the principle of comparative advantage to determine the basis on which mutually advantageous trade can take place between individuals and/or countries, and to identify comparative advantage from differences in opportunity costs. Other basic concepts that are explored include the functions performed by an economic system and the way the tools of supply and demand are used to analyze the workings of a free market economy. The course also introduces the concept of the business cycle to give students an overview of economic fluctuations and to highlight the dynamics of unemployment, inflation, and economic growth. Coverage of these concepts provides students with the foundation for a thorough understanding of macroeconomic concepts and issues. 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 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 2**

This course is a required, junior-level, social studies course designed to provide student the opportunity to acquire the knowledge and skills necessary to better understand and analyze historical eras of American history from 1900 to the Modern era.. Topics, eras, and themes include Progressivism, the causes and effects of World War 1, the Roaring Twenties and the Great Depression, the causes and effects of World War 2, the Civil Rights Era, the causes and effects of the Vietnam War, and examining social and political changes from the 1980's to modern times. Students will analyze, compare and contrast, and seek to better understand how American life has evolved and changed since 1900.

### **United States History 2 Honors**

This course is a required, junior-level, social studies course designed to provide student the opportunity to acquire the knowledge and skills necessary to better understand and analyze historical eras of American history from 1900 to the Modern era.. Topics, eras, and themes include Progressivism, the causes and effects of World War 1, the Roaring Twenties and the Great Depression, the causes and effects of World War 2, the Civil Rights Era, the causes and effects of the Vietnam War, and examining social and political changes from the 1980's to modern times. Students will analyze, compare and contrast, and seek to better understand how American life has evolved and changed since 1900. 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.

**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, India, the Middle East, East Asia, and Latin America. 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, India, the Middle East, East Asia, and Latin America. 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.

**World History, C**

World History is a course that explores the key events and global historical developments that have shaped the world we live in today from the age of industrialization to the present day. Students will explore key events and experiences focusing on: economics, science, religion, philosophy, politics and law, military conflict, literature and the arts. The course will highlight connections between our lives and those of our ancestors around the world. Students will uncover patterns of behavior, identify historical trends and themes, explore historical movements and concepts, and test theories. Students will refine their ability to read for comprehension and critical analysis; summarize, categorize, compare, and evaluate information; write clearly and convincingly; express facts and opinions orally; and use technology appropriately to present information.

**World History Honors, C**

World History is a course that explores the key events and global historical developments that have shaped the world we live in today from the age of industrialization to the present day. Students will explore key events and experiences focusing on: economics, science, religion, philosophy, politics and law, military conflict, literature and the arts. The course will highlight connections between our lives and those of our ancestors around the world. Students will uncover patterns of behavior, identify historical trends and themes, explore historical movements and concepts, and test theories. Students will refine their ability to read for comprehension and critical analysis; summarize, categorize, compare, and evaluate information; write clearly and convincingly; express facts and opinions orally; and use technology appropriately to present information. Honors students will be expected to read more complex texts (primary and secondary sources) inside and outside of class as well as introduce independently researched ideas, concepts and resources within teacher created learning experiences.

# TECHNOLOGICAL STUDIES

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Course Description Video 

## Project Lead the Way Courses (Honors)

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:

Civil Engineering and Architecture \*  
Computer Integrated Manufacturing\*  
Digital Electronics \*  
Environmental Sustainability \*

### 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.

## 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, Autodesk Revit, 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.

### **Environmental Sustainability (Honors)** ([Prerequisites](#): Biology, Algebra II, IED or POE)

Environmental Sustainability (ES) is an interdisciplinary specialty engineering course in the PLTW Engineering pathway. In ES, students investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply issues, and renewable energy. Applying their knowledge through hands-on activities and simulations, students research and design potential solutions to these true-to-life challenges. ES brings together engineering, biology, and ecology. The demand is high and the need is great for both environmental and biological engineering professionals. This course provides a solid foundation in both disciplines, taking students from introduction to in-depth exploration. The ES 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.

### **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.

### **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 through YouTube, to the QCHS 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, writing, broadcast anchor and talk-show work, control room switching, directing and editing. Resulting work will be public. Students will need 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**.

#### **TV News/Video Editing 2**

This course is a fast-paced, highly rigorous application of concepts and applications taught in [Level 1 of this course](#). [Course Description Video](#)  storytelling, storyboarding, script-writing, video, broadcast anchor and talk-show work, control room switching, directing 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 for QCSD and Quakertown Borough. 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 school day gathering video story footage at 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, broadcast anchor and talk-show work, control room switching, directing 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 **must commit to filming at least one after school or evening event per marking period** to gather video story footage at district buildings and in the community. The course will demand collaborative, creative, critical thinking and decision making skills. It is designed to prepare students for college and professional video production.



# WORLD LANGUAGE

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## 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

This [proficiency](#)-based course builds upon skills mastered in German 2. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. 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. Students read short selected texts. Students continue to study German culture and geography. The majority of the class is conducted in German.

### 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 Honors

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 Honors

This [proficiency](#)-based course is intended for students who wish to further 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 builds on previous Mandarin study with a deeper exploration of vocabulary, grammar and culture.

### 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 philosophy. Class is scheduled five lessons per week, one lesson per day. Students meet their teachers twice a week for an 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 accurately express ideas orally and in writing.

### **Spanish 1**

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**

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**

This [proficiency](#)-based course builds upon skills mastered in Spanish 2. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. 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. Students read short selected texts. Students continue to study Spanish culture and geography. The majority of the class is conducted in Spanish.

### **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.

### **Spanish 4 Honors**

This course builds upon skills mastered in Spanish 3. Listening, speaking, reading, and writing skills are expanded through [proficiency](#)-based activities. 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. Students read authentic literary texts and continue their study of Spanish culture and geography. The course is conducted primarily in Spanish.



# SPECIAL PROGRAMS AND SERVICES

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## **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.

## **QCSD Skills Based Assessment**

Students in the Class of 2018 who have not been able to demonstrate proficiency on any of the three Keystone exams in Algebra 1, Biology, or Literature, will work through one or more of the Skills Based Assessments designed as an alternative to passing the Keystone exam. This program uses self-directed Study Island course of study with available support during PRIDE.

## **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.



The Upper Bucks County Technical School provides training to 9th-12th grade students from Palisades, Penridge, 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](http://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.

## [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.

## **Mechatronics**

- Design and build robotic devices.
- Diagnose and repair sophisticated equipment.
- Communicate using machine language.

### **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**

- 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

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Advanced Placement (AP) Course	(see Course, <a href="#">Advanced Placement (AP)</a> )
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: <a href="http://www.portal.state.pa.us/portal/server.pt/document/1242645/2005_anchorintofinal_pdf?qid=36591004&amp;rank=1">http://www.portal.state.pa.us/portal/server.pt/document/1242645/2005_anchorintofinal_pdf?qid=36591004&amp;rank=1</a></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: <a href="#"><u>Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning.</u></a> 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: <a href="http://springboardprogram.collegeboard.org/">http://springboardprogram.collegeboard.org/</a></p>
Assessment, Formative	<p>Formative assessments take place throughout the school year. They help 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:  <a href="http://www.pearson.com/glossary.html#S">http://www.pearson.com/glossary.html#S</a></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:  <a href="http://professionals.collegeboard.com/guidance/applications/rank">http://professionals.collegeboard.com/guidance/applications/rank</a></p> <p>More information about class rank can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsc.org/guidance">www.qcsc.org/guidance</a></p>
Core Academic Course	(see <a href="#">Course, Core Academic</a> )
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:  <a href="https://bigfuture.collegeboard.org/get-in/testing/learn-about-the-ap-program">https://bigfuture.collegeboard.org/get-in/testing/learn-about-the-ap-program</a></p> <p>QCSD students have the opportunity to take a variety of AP courses.</p>
Course, Core Academic	The QCSD Board policy defines core courses as English, Mathematics, Science, and Social Studies.
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:  <a href="http://www.wisegeek.org/what-are-elective-courses.htm">http://www.wisegeek.org/what-are-elective-courses.htm</a></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:  <a href="http://en.wikipedia.org/wiki/Course_credit">http://en.wikipedia.org/wiki/Course_credit</a></p>
Cumulative Grade Point Average	<p>(see <a href="#">Grade Point Average, Cumulative</a>)</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:  <a href="http://www.inacol.org/resources/faqs/#whatisol">http://www.inacol.org/resources/faqs/#whatisol</a></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 <a href="#">Course, Dual Enrollment</a>)</p>
Distinguished Honor Roll	<p>(see <a href="#">Honor Roll, Distinguished</a>)</p>
Elective Course	<p>(see <a href="#">Course, Elective</a>)</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:  <a href="http://artseducator20.iu1.wikispaces.net/file/view/SAS-Fact-Sheet-1.pdf/346756296/SAS-Fact-Sheet-1.pdf">http://artseducator20.iu1.wikispaces.net/file/view/SAS-Fact-Sheet-1.pdf/346756296/SAS-Fact-Sheet-1.pdf</a>  <a href="http://static.pdesas.org/content/documents/PSSA%20PACC%20Mathematics%20AA%20EC%20Grade%2008%20Jan%202013.pdf">http://static.pdesas.org/content/documents/PSSA%20PACC%20Mathematics%20AA%20EC%20Grade%2008%20Jan%202013.pdf</a></p> <p>Eligible content guides QCSD curriculum development, instruction and assessment practice.</p>
Embedded Assessment	(see <a href="#">Assessment, Embedded</a> )
Fail	<p>To receive less than the passing grade or mark in an examination, class, or course of study.</p> <p>Source:  <a href="http://dictionary.reference.com/browse/fail?s=t">http://dictionary.reference.com/browse/fail?s=t</a></p>
Formative	(see <a href="#">Assessment, Formative</a> )
General Interest Course	(see <a href="#">Course, General Interest</a> )
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:  <a href="http://www.oxforddictionaries.com/definition/english/grade-point-average">http://www.oxforddictionaries.com/definition/english/grade-point-average</a></p> <p>More information about GPA can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsc.org/guidance">www.qcsc.org/guidance</a>.</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:  <a href="http://gpacalculator.net/how-to-calculate-gpa/cumulative-gpa/">http://gpacalculator.net/how-to-calculate-gpa/cumulative-gpa/</a></p> <p>More information about Cumulative GPA can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsc.org/guidance">www.qcsc.org/guidance</a></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:  <a href="http://www.scholarships.com/blog/college-culture/weighted-vs-unweighted-gpa/37/">http://www.scholarships.com/blog/college-culture/weighted-vs-unweighted-gpa/37/</a></p> <p>More information about Unweighted GPA can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsd.org/guidance">www.qcsd.org/guidance</a></p>
Grade Point Average, Weighted	<p>In QCSD, certain courses are identified as weighted course. The students' final <a href="#">quality points</a> reflect the identified weighting.</p> <p>More information about Weighted GPA can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsd.org/guidance">www.qcsd.org/guidance</a></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"> <li>- No grade lower than a "C"</li> </ul> <p>Sources:  <a href="http://dictionary.reference.com/browse/honor+roll">http://dictionary.reference.com/browse/honor+roll</a>  <a href="http://www.qcsd.org/shshandbook">http://www.qcsd.org/shshandbook</a></p> <p>More information about Honor Roll can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsd.org/guidance">www.qcsd.org/guidance</a></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"> <li>- No grade lower than a "B"</li> </ul> <p>Source:  <a href="http://www.qcsd.org/shshandbook">http://www.qcsd.org/shshandbook</a></p> <p>More information about Distinguished Honor Roll can be shared by QCSD Guidance Counselors using their contact information at <a href="http://www.qcsd.org/guidance">www.qcsd.org/guidance</a></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:  <a href="http://www.education.com/reference/article/individualized-education-program-iep1/#A">http://www.education.com/reference/article/individualized-education-program-iep1/#A</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](http://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](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](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](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](#))