



Quakertown Community High School

2024-2025 Program of Studies

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General Information

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 2024 and Beyond	
	QCHS Full Time	UBCTS Students
English	4.0	4.0
Social Studies	4.0	3.0
Science	3.0/4.0*	3.0
Mathematics	3.0/4.0*	3.0
Physical Education	1.0	1.0
Health	1.0	1.0
Arts	0.5	0.5**
Elective	6.5	8.5
	24 credits	24 credits

* QCHS Full Time Students must have a minimum of 7 total Math and Science credits combined to be eligible for graduation. Full time students must complete at a minimum Algebra 1, Geometry and Algebra 2/2A, as well as Biology, Chemistry and Physics even if the credit requirement has been met. Exceptions must be approved by the Assistant Superintendent.

**Participation in the UBCTS program may satisfy this requirement.

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. For the class of 2023 and beyond, successful completion of Act 158 requirements.

Students who meet state graduation requirements while attending school at a district-supported placement may receive a QCHS Diploma and be recognized as a QCHS graduate.

Act 158

Act 158 of 2018 provides alternatives to Pennsylvania's statewide requirement of attaining proficiency on the three end-of-course Keystone Exams (Algebra I, Literature, and Biology) in order for a student to achieve statewide graduation requirements.

Effective with the graduating class of 2023, students have the option to demonstrate postsecondary preparedness through one of four additional pathways that more fully illustrate college, career, and community readiness. Keystone Exams will continue as the statewide assessment Pennsylvania uses to comply with accountability requirements set forth in the federal Every Student Succeeds Act (ESSA).

Although students will no longer be required to achieve proficiency on the Keystone Exams in order to meet statewide graduation requirements, students must take the Keystone Exams for purposes of federal accountability.

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

College and Career Readiness Portfolio Requirement *(Effective with the Class of 2024)*

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The purpose of the senior portfolio requirement is to provide an opportunity for a student to reflect on and articulate how his/her high school experiences including industry based learning, field study/volunteer work and rigorous academic coursework led the student to formulate his/her future goals and career plans. This ability to synthesize experiences for the purpose of transition planning is a critical component of the QCHS Career Pathways program, which fosters a learning environment in which students are becoming more intentional and thoughtful about their post graduation plans.

Students will be required to complete and present a comprehensive portfolio in the second semester of senior year. Students will be evaluated using a standardized rubric and will be scored with a "P" (pass) or "F" (fail). The grade will appear on the student's transcript. Students must attain a passing grade to meet the graduation requirement. Students will be assigned to a faculty member, who will serve as a Pathways Advisor, to support students in meeting this requirement. Components of the portfolio that will be evaluated as defined by the rubric will include but are not limited to: Field study/Volunteer experiences, resume, oral presentation, and a reflection paper. Coaching feedback from the review panel will be provided to the student after the presentation; thus, utilizing the portfolio presentation as a learning tool in the transition process. Feedback will be discussed by the student and his/her Pathways Advisor.

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 understand that out-of-class work and assignments are necessary for success.

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](#). Students participating in the AP Capstone program must complete all college board expectations.

Career Pathways

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Career Pathways at Quakertown Community High School provides a cohesive and comprehensive framework that combines student interests, learning, and experiences in a way that customizes a student's education. The Pathways Program promotes rigorous coursework (including AP classes), increased self-knowledge, and the acquisition of real-world employability skills. Through the program, all students will choose one of five Pathways: Arts & Humanities, Business, Marketing and Finance, Education, STEM, or Undeclared. Within each Pathway, multiple areas of focus may be available for a student to select, culminating with a community field experience relevant to his or her pathway. The Undeclared Pathway provides students the option to continue to explore interests in a more general way while still providing an opportunity to participate in a field study connected to a potential career path. While every student will choose a pathway, students may still meet graduation requirements without completing a pathway. Students who complete a pathway with fidelity will be recognized at graduation.

[Arts and Humanities Pathway](#)

This pathway allows students to explore careers in the Arts and Humanities. Students who choose this pathway may be interested in careers such as producing, exhibiting, performing, writing, publishing multimedia content, visual and performing arts, design, journalism, entertainment or other related fields. Students may elect to participate in a field study experience which reflects the skills and competencies needed to be successful in this field.

Business, Marketing, and Finance Pathway

This pathway allows students to explore careers in Business, Marketing, and Finance. Students who choose this pathway may be interested in careers such as planning, organizing, directing and evaluating business functions essential to business operations. They may also be interested in finance and investment, marketing, entrepreneurial endeavors, or have other business related interests. Students may elect to participate in a field study experience which reflects the skills and competencies needed to be successful in this field.

Education Pathway

This pathway allows students to explore careers in education as a way to teach and inspire others. Students who choose this pathway may be interested in careers such as a teacher, counselor, specialist, librarian, coach or administrator. This pathway also aligns to the skills needed to lead training for employees in a business or industry. Students completing this pathway may elect to participate in a field study experience which reflects the skills and competencies needed to be successful in this field.

STEM and Computer Science Pathway

This pathway allows students to explore careers in the fields of Science, Technology, Engineering, Mathematics, and Computer Science. Students who choose this pathway may be interested in planning, managing and providing scientific research and professional and technical services (e.g., physical science, engineering). Students may also be interested in the medical field, information technology occupations or other related fields. Students completing this pathway may elect to participate in a field study experience which reflects the skills and competencies needed to be successful in this field.

Undeclared Career Pathway

This pathway is intended for students still exploring areas of interest. In addition to taking a variety of electives, students may choose to enroll in a half or full credit field study for the opportunity to further investigate a potential career. Students in the undeclared pathway are required to meet the general graduation requirements.

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 and Project Lead the Way (PLTW) courses. An additional half point is awarded for all AP and dual enrollment courses. To receive weighting additions, students must earn at least a "C" in the course.

Grade	Numeric Range	GPA		
		College Prep	Honors and PLTW	AP / Dual Enrollment
A	90 - 100	4.0	4.25	4.50
B	80 - 89	3.0	3.25	3.50
C	70 - 79	2.0	2.25	2.50
D	60 - 69	1.0	1.0	1.0
F	50 -59	0.0	0.0	0.0

Dual Enrollment Opportunities

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Quakertown Community High School encourages all students to take challenging coursework that will prepare them for College and Career. QCHS 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.

Quakertown Community High School has established academic partnerships with the following collegiate institutions: Harrisburg University, Arizona State University, Pittsburgh University, and Bucks County Community College. These collaborations signify a commitment to providing QCHS students with exceptional educational opportunities and pathways for future success. Through these partnerships, students will be offered a diverse range of courses that align with the rigorous standards and educational objectives set by each respective institution. For more information regarding dual enrollment at these schools, including course descriptions, [please see here](#).

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%
- 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 the 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 judgment 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](#)

PIAA

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To be eligible for interscholastic athletic competition, [per PIAA by-laws](#), students must be passing at least four full-credit subjects, or the equivalent. Eligibility is cumulative from the beginning of a grading period and will be reported on a weekly basis.

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. Students enrolling in a cyber class must understand the commitment to remain in the course once the enrollment is processed. 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 considered final July 1 after which only emergency schedule changes will be made with administrator approval. After the second week of course, schedule changes will be noted on transcripts by a "W" or "WF".

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. 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 counseling 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. There is a financial cost to the student / family for each summer school course taken.

Weighted Class Rank

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



Required Core Academic Courses

English

- English 9
- English 9 Honors

Mathematics

- Algebra 1
- Algebra 1A
- Algebra 2
- Algebra 2 Honors
- Geometry
- Geometry Honors
- Precalculus
- AP Precalculus

Health

- Health (0.5 Credit)

Physical Education

- Foundations of Wellness and Fitness (0.5 Credit)

Science

- Biology Honors
- General Science

Social Studies

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

Arts (Art, Dance, Music & UBCTS Programs)

All students must take 0.5 credits before graduation.

General Interest Courses

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

Music

- AP Music Theory
- High School Chorus
- High School Chorus Combo
- Symphonic Band
- Symphonic Band Combo
- Pop, Rock, & Jazz (0.5 Credit)
- Concert Orchestra
- Chamber Orchestra
- Piano (0.5 Credit)
- Guitar (0.5 Credit)

9th Grade Specialized Interest Courses

Art

- AP Art History
- Intro to 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 1 (0.5 Credit)
- Dance 2 (0.5 Credit)
- Dance 3 (0.5 Credit)
- Movement for Athletes (0.5 Credit)
- Dance in Musical Theater (0.5 Credit)

Focused Electives

- Applied Horticulture and Horticulture Operations (2 Credits)
- Catering and Food Service Professional (2 Credits)
- Cinematography and Film Production (2 Credits)
- Digital Communications and Media (2 Credits)
- Engineering and Engineering Technology (2 Credits)
- Job-Seeking and Changing Skills (2 Credits)
- Public Safety (2 Credits)
- Teacher Preparation Program (2 Credits)

English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (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

- 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)

Social Studies

- AP Psychology
- Psychology (0.5 Credit)
- Sociology and Anthropology (0.5 Credit)
- Women Making History (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

10th Grade Program of Study



Required Core Academic Courses

English

- English 10
- English 10 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
- Geometry Honors
- Precalculus
- AP Precalculus

Health and Physical Education

- Health 2 (0.5 Credit)
- Movement and Exercise Science (0.5 Credit)

Science

For students who are taking General Science 9:

- Biology
- Biology Honors

For students who are taking Biology Honors:

- Chemistry
- Chemistry Honors
- AP Physics 1
- Physics

Social Studies

- AP World History
- World History
- World History Honors

General Interest Courses

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
- High School Chorus
- Senior High Honors Choir
- Symphonic Band
- Wind Symphony
- Concert Band and High School Chorus
- Symphonic Band and Senior High Choir
- Pop, Rock, & Jazz (0.5 Credit)
- Concert Orchestra
- Chamber Orchestra
- Piano (0.5 Credit)
- Guitar (0.5 Credit)

10th Grade Specialized Interest Courses

AP Capstone

- AP Seminar

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 1 (0.5 Credit)
- Dance 2 (0.5 Credit)
- Dance 3 (0.5 Credit)
- Movement for Athletes (0.5 Credit)
- Dance in Musical Theater (0.5 Credit)

English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (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

- 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)

Focused Electives

- Applied Horticulture and Horticulture Operations (2 Credits)
- Catering and Food Service Professional (2 Credits)
- Cinematography and Film Production (2 Credits)
- Digital Communications and Media (2 Credits)
- Engineering and Engineering Technology (2 Credits)
- Job-Seeking and Changing Skills (2 Credits)
- Public Safety (2 Credits)
- Teacher Preparation Program (2 Credits)

Health and Physical Education (MES Pre-requisite)

- Fit PLUS (0.5 Credit)
- Team Works (0.5 Credit)

Science

- Anatomy and Physiology
- AP Biology
- 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)
- Women Making History (0.5 Credit)

Technological Studies

- Project Lead the Way (Pre-requisites *)
- Introduction to Engineering Design
- Principles of Engineering
- Civil Engineering and Architecture *
- Cybersecurity *
- 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

11th Grade Program of Study



Required Core Academic Courses

English

- English 11
- English 11 Honors
- AP English Language and Composition

Mathematics

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

Science

- Introduction to Chemistry (0.5 Credit)
- Chemistry
- Chemistry Honors
- Introduction to Physics (0.5 Credit)
- Physics
- AP Physics 1
- AP Physics C: Mechanics
- AP Physics C: Electricity and Magnetism

Social Studies

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

General Interest Courses

World Language

German Courses

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

Mandarin Courses

- AP Mandarin
- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3 Honors
- Mandarin 4 Honors

World Language (continued)

Spanish Courses

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

Music

- AP Music Theory
- High School Chorus
- Senior High Honors Choir
- Symphonic Band
- Wind Symphony
- Concert Band and High School Chorus
- Symphonic Band and Senior High Choir
- Pop, Rock, & Jazz (0.5 Credit)
- Concert Orchestra
- Chamber Orchestra
- Piano (0.5 Credit)
- Guitar (0.5 Credit)

11th Grade Specialized Interest Courses

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 1 (0.5 Credit)
- Dance 2 (0.5 Credit)
- Dance 3 (0.5 Credit)
- Movement for Athletes (0.5 Credit)
- Dance in Musical Theater (0.5 Credit)

English Language Arts

- Creative Writing 1 (0.5 Credit)
- Creative Writing 2 (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

- 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 (0.5 Credit)

Focused Electives

- Applied Horticulture and Horticulture Operations (2 Credits)
- Catering and Food Service Professional (2 Credits)
- Cinematography and Film Production (2 Credits)
- Digital Communications and Media (2 Credits)
- Engineering and Engineering Technology (2 Credits)
- Job-Seeking and Changing Skills (2 Credits)
- Public Safety (2 Credits)
- Teacher Preparation Program (2 Credits)

Health and Physical Education

- Health 2 (0.5 Credit)
- Fit PLUS (0.5 Credit)
- Officiating and Umpiring (0.5 Credit)
- Team Works (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)
- Forensics II (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)
- Women Making History (0.5 Credit)

Technological Studies

- Project Lead the Way (Pre-requisites *)
- Introduction to Engineering Design
- Principles of Engineering
- Civil Engineering and Architecture *
- Cybersecurity *
- 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

12th Grade Program of Study



Required Core Academic Courses

English

- AP English Literature and Composition
- English 12 Honors
- English 12

Mathematics

- Algebra 2
- Algebra 2 Honors
- Algebra 2A
- AP Calculus AB
- AP Calculus BC
- AP Probability and Statistics
- Calculus Honors
- Precalculus
- AP Precalculus
- 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
- AP Physics C: Mechanics
- AP Physics C: Electricity and Magnetism
- Chemistry
- Chemistry Honors
- Introduction to Chemistry (0.5 Credit)
- Introduction to Physics (0.5 Credit)
- Physics

Social Studies

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

General Interest Courses

World Language

German Courses

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

Mandarin Courses

- AP Mandarin
- Mandarin 1 Honors
- Mandarin 2 Honors
- Mandarin 3 Honors
- Mandarin 4 Honors

World Language (continued)

Spanish Courses

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

Music

- AP Music Theory
- High School Chorus
- Senior High Honors Choir
- Symphonic Band
- Wind Symphony
- Concert Band and High School Chorus
- Symphonic Band and Senior High Choir
- Pop, Rock, & Jazz (0.5 Credit)
- Concert Orchestra
- Chamber Orchestra
- Piano (0.5 Credit)
- Guitar (0.5 Credit)

12th Grade Specialized Interest Courses

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)
- 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 1 (0.5 Credit)
- Dance 2 (0.5 Credit)
- Dance 3 (0.5 Credit)
- Movement for Athletes (0.5 Credit)
- Dance in Musical Theater (0.5 Credit)

Family and Consumer Science

- 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)

Health and Physical Education

- Health 2 (0.5 Credit)
- Fit PLUS (0.5 Credit)
- Officiating and Umpiring (0.5 Credit)
- Team Works (0.5 Credit)

Field Study

- Field Study (0.5 Credit)

Focused Electives

- Applied Horticulture and Horticulture Operations (2 Credits)
- Catering and Food Service Professional (2 Credits)
- Cinematography and Film Production (2 Credits)
- Digital Communications and Media (2 Credits)
- Engineering and Engineering Technology (2 Credits)
- Job-Seeking and Changing Skills (2 Credits)
- Public Safety (2 Credits)
- Teacher Preparation Program (2 Credits)

Science

- 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)
- Forensics II (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)
- Women Making History (0.5 Credit)

Technological Studies

- Project Lead the Way (Pre-requisites *)
- Introduction to Engineering Design
- Principles of Engineering
- Civil Engineering and Architecture *
- Cybersecurity *
- 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

Course Descriptions

AP Capstone

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AP Seminar

During this challenging course, students will complete phase one of the coveted AP Capstone certificate. A thirst for knowledge will lead students to engage in the analysis and evaluation of a variety of texts. Performance Tasks involve the development of compelling questions, research through various social lenses, and consideration of multiple perspectives. Students will engage in individual as well as group writing tasks and multimedia presentations. The skills students acquire in this course will prepare them for college expectations.

**This course is a prerequisite to AP Research.*

AP Research

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. It's an opportunity to take control of your education and learn about nearly any topic that will have a real impact on your life and future career! Through this exploration, students design, plan, and conduct a year-long research-based investigation. Instead of teaching specific subject knowledge, AP Research uses an interdisciplinary approach to develop the critical thinking, research, collaboration, time management, and presentation skills needed for any college or career, ultimately better preparing students to pursue their passions. The course culminates in an academic paper of approximately 4000-5000 words and a presentation with an oral defense.

**Successful completion of AP Seminar is a prerequisite for this course.*

ART

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Introduction to Art

This course is open to students who are interested in beginning an exploratory study of art through a series of assignments in both two- and three-dimensional art. Students can expect to work in a variety of materials such as clay, paint, papers, colored pencils and markers in order to develop art making skills in the visual arts. Students will evaluate their creative efforts through art critiques and assessment processes to learn how to objectively discuss art through analysis of basic principles of design.

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, Printmaking 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 students to skills, tools, techniques, and materials related to three-dimensional sculpture and design. Students will be creating both functional and non-functional pieces of art that span several different types of media. Students will be creating original pieces of artwork in the areas of ceramics, fibers, jewelry making/ metalsmithing, glass, and paper mâché. In addition to creating original three-dimensional works of art, students will reflect on their artistic process as well as participate in critiques with their classmates to assess their progress through the course.

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

Advanced 2- Dimensional Art

This course will continue to expand and refine student experiences in 2-Dimensional Art, which will allow students to explore various visual art forms and techniques through the elements and principles of design in Drawing, Painting, Printmaking 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.

**Successful completion of 2-Dimensional Art is a prerequisite for this course.*

**May be repeated for credit.*

Advanced 3-Dimensional Art

This course will enable students to extend their understanding of three-dimensional sculpture and design while further developing their creative problem-solving techniques to better show personal style and expression. Students will produce a body of work consisting of original three-dimensional pieces created in a variety of media including jewelry making/metalsmithing, ceramics, glass, fibers, and plaster. Students will be given more freedom to explore different technical processes while developing and refining their artistic vision for their work. As well as three-dimensional art production, students will also explore ways of reflecting and discussing their artistic choices with others while also constructively assessing the work of their peers.

**Successful completion of 3-Dimensional Art is a prerequisite for this course.*

Digital Design

This course is ideal for students who are creative and interested in developing visual design skills with digital devices and computer software. Explore combinations of photography and graphic design while you create illustrations, logos, digital composites and more. Build your skills in photography and Adobe Photoshop as you create imaginative results in a variety of graphic design challenges. You are encouraged to use your own devices, as well as learn about new tools, software and processes to design better images for print, social media, merchandise and artistic ventures.

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

Advanced Digital Design

This course can be taken multiple times so students can build on their design and software skills. It is designed so students can practice new concepts and skills while they personalize their experiences in media and visual graphics. Students will take on new creative challenges in photography and Adobe software to prepare a collection of images for their final portfolios. These students can also take advantage of working with advanced tools, Cintiq drawing tablets, Apple i-pencils and pads, DSLR cameras and more. So many things to explore and design!

**Successful completion of Digital Design is a prerequisite for this course.*

AP Art History

This year-long Advanced Placement course provides high achieving students with a learning experience equivalent to a college level introductory art history course. This course includes critical thinking and will develop an understanding and knowledge of diverse historical and cultural context of architecture, sculpture, painting and other media. In this course, students examine and critically analyze major forms of artistic expression from the past and present. While visual analysis is a fundamental tool of the art historian, art history emphasizes understanding how and why works of art function in context, considering such issues as patronage, gender and the functions and effects of works of art.

AP Studio Art - Drawing Portfolio

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. The Drawing Portfolio is intended to address a very broad interpretation of drawing issues and media. Line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth and mark-making are drawing issues that can be addressed through a variety of means which include, painting, mixed media, etc. 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. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year.

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

BUSINESS AND INFORMATION TECHNOLOGY

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Accounting 1

This course is an introduction to accounting concepts. Students will understand the accounting process for a service based business organized as a proprietorship. They will learn generally accepted accounting principles and use them to analyze, record, and report business transactions. Students will prepare financial statements to evaluate the performance of a business. Accounting software and spreadsheets and computer simulations will be used.

**Prerequisite for Accounting 2 Honors*

Accounting 2 Honors

This advanced-course expands on the topics learned in Accounting 1 while adding new topics about management accounting, cost accounting, and financial analysis. Accounting 2 Honors helps qualify students for jobs and careers at higher levels than Accounting 1. This course is an excellent preparation for college business and accounting courses and business majors. Topics covered in this course include: Business Ethics, Careers in Accounting, Personality Profiles, Accounting Software Options, and Applied Mathematics.

**Successful completion of Accounting 1 is a prerequisite for this course.*

Business Law

If you are thinking about a career in any type of law profession, this course is for you! In this course, students will explore the foundations of law as it applies to business and the application of legal concepts to everyday life. Topics covered include the structure of the US court systems, civil law, criminal law, family law, wills and estate law and laws of renting. The class will relate the course content to the United Supreme Court's Docket for the current term. Students will have the opportunity to analyze case studies and legal briefs with the goal of increasing knowledge of legal rights and responsibilities. The class will focus on legal current event issues as they relate to the course content. Through class discussion we want our students to develop their own personal opinions/views of legal issues that our society is addressing in our court systems. Guest Speakers will share real life experiences and knowledge of the US Law systems.

Entrepreneurship

Do you want to own your own business someday? If yes, then you have to give this course a try! This course will help students to develop the 21st century skills needed for entrepreneurial activities. Students will learn the characteristics of entrepreneurs, what entrepreneurial characteristics they possess, and explore challenges that face entrepreneurs. We will create a business plan and develop a website for the business you choose to start! Students will come up with an elevator pitch and present their business idea to fellow students(As seen on the Shark Tank tv show). Included in the business plan: marketing plan, financial documents, and the business operations plan. The online simulation used in the class will add real life financial experience on starting a business.

International Business

This course will provide the foundation for studying international business and conducting business in the global environment. Students will develop the appreciation, knowledge, skills, and abilities needed to live and work in a global marketplace. Students will learn about the impact of technology on global business, culture as it relates to business practice, trade barriers, the political impact on trade, international business finance, and legal agreements. Students will be provided with opportunities to analyze alternative aspects of international business. Students will be engaged in real-world applications and projects.

Introduction to Business

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

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 entertainment marketing, along with exposing students to how Social Media is used for business purposes. You will learn about the key functions of marketing and how those functions are applied to the sports entertainment industry. A marketing plan (project) to start a professional football/baseball team in a city who currently does not have a professional team will be developed. The students will create a fantasy football/baseball league to support the marketing plan. This course will also cover the basics of social media marketing. We will use our Twitter and Instagram @Pantherpack accounts to develop a social media marketing plan to promote a target market. It will introduce students to engaging users using social media with a business purpose. Guest speakers, case studies, sporting event projects, a class trip to Lincoln Financial Field/Citizens Bank Park, and on-line interactive simulations 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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Dance I

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.

**This course is a prerequisite for Dance II*

Dance II

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.

**Successful completion of Dance I is a prerequisite for this course*

**This course is a prerequisite for Dance III*

Dance III

Students will study dance composition through multiple lenses including improvisation, performance, form & 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.

**Successful completion of Dance II is a prerequisite for this course*

Dance in Musical Theater

This musical theater dance class is designed to provide students with a comprehensive understanding of the fundamentals of musical theater dance. Through a combination of movement exercises, choreography, and historical context, students will develop the skills and knowledge necessary to excel in musical theater dance performances.

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.

Movement for Athletes

Movement for Athletes focuses on the physiology of athleticism through movement including a focus on flexibility, mobility, injury prevention, mindfulness, and movement patterns. The goal of this course will be to provide student athletes with tools needed to increase and efficiency of movement, gain control of breath, increase overall flexibility, increase overall flexibility, increase range of motion, and increase psychomotor development through movement sequences.

ENGLISH

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English 9

This PA Core course consists of multiple units of study. Throughout the year, the thematic concepts of identity and relationships will be introduced and explored in short stories, poetry, essays, expository texts, and novels. Students will identify diction, syntax, and tone and analyze the way these elements work together to convey an author's or speaker's voice. In addition, students will incorporate voice effectively in their own writings. Students will examine the nature of identity and relationships as they examine how an author conveys the theme. Instruction in effective writing mechanics, the craft of writing, and audience awareness will be emphasized throughout the year. Students will be challenged to go beyond literal comprehension and will explore deeper levels of thinking and analysis. Key texts will include *Speak* by Laurie Halse Anderson, *The Five People You Meet in Heaven* by Mitch Albom, and *The Tragedy of Romeo and Juliet* by William Shakespeare.

English 9 Honors

This PA Core consists of multiple units of study.. Throughout the year, the thematic concepts of identity and relationships will be introduced and explored in short stories, poetry, essays, expository texts, and novels. Students will identify diction, syntax, and tone and analyze the way these elements work together to convey an author's or speaker's voice. In addition, students will incorporate voice effectively in their own writing. As students examine the nature of identity and relationships, they will analyze how an author conveys the theme. Instruction in effective writing mechanics, the craft of writing, and audience awareness will be emphasized throughout the year. Students will be challenged to go beyond a reader's response approach to literary analysis and demonstrate depth of thought through various perspectives. The classic works of literature *The Catcher in the Rye*, *To Kill a Mockingbird*, and *The Tragedy of Romeo and Juliet* will be studied. In addition, the contemporary novel *Purple Hibiscus* will be studied. Students will explore the significance of setting, conflict, and the growth of characters in relation to the overarching theme of identity and relationships. They will extrapolate from shorter passages the larger themes and literary elements of the literature. 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 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.

English 10

Students will learn that through literature, they can examine the human condition and what motivates an individual, a community, and a society. Students will learn the role of literacy in the world, along with the importance of analysis in order for students to make sense of the world around them. Units of study may include "Identity and Society," "Ambition and Restraint," "Ethics," "Cultures in Conflict," "(Mis)Communication" and "Utopia/Dystopia." Students will read a variety of texts, and write a variety of genres in response to reading, including argumentative writing, reflective writing, narrative writing, and literary analysis.

English 10 Honors

Students will learn that through literature, they can examine the human condition and what motivates an individual, a community, and a society. Students will learn the role of literacy in the world, along with the importance of analysis in order for students to make sense of the world around them. Units of study may include "Identity and Society," "Ambition and Restraint," "Ethics," "Cultures in Conflict," "(Mis)Communication" and "Utopia/Dystopia." Students will read a variety of texts, and write a variety of genres in response to reading, including argumentative writing, reflective writing, narrative writing, and literary analysis.

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."

English 11

Students in English 11 will read a variety of fiction and non-fiction texts written between the mid-1500s to present day with themes ranging from family to conformity and rebellion to war and peace. The course will use chapters and readings from Bedford's *Literature and Composition* textbook as well as various additional novels, essays, poems, and artwork. In class, students will participate in activities that will prepare them for their future college or career endeavors, focusing on critical thinking skills, writing, and speaking (both in front of a class and in groups). For this course, students will be expected to read assignments, complete regular activities in and outside of class, as well as write shorter in-class pieces as well as process writing over a period of days. Major assignments for the course will include argumentative and narrative writing as well as performance and presentation.

English 11 Honors

Students in English 11 Honors will read a variety of classic fiction and higher-level non-fiction texts written between the mid-1500s to present day with themes ranging from family to conformity and rebellion to war and peace. The course will use chapters and readings from Bedford's *Literature and Composition* textbook as well as various additional novels, essays, poems, and artwork. In class, students will participate in activities that will prepare them for their future college or career endeavors, focusing on critical thinking skills, writing, and speaking (both in front of a class and in groups). Outside of class, students are expected to read regularly and keep up with classroom assignments, managing long term deadlines. For this course, students will be expected to read assignments, complete regular activities in and outside of class, as well as write shorter in-class writing assessments and long term process writing. Major assignments for the course will include argumentative and narrative writing as well as performance and presentation.

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.

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.

English 12

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.

English 12 Honors

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

This course is for students who like to write and want to hone their craft. Students will experiment with different genres including creative nonfiction, fiction, and poetry. By reading, analyzing, and discussing the works of published authors, students will learn to apply effective writing techniques to enhance their original works. The writing workshop mode requires that students be willing to write, write, and write some more. The focus is to experiment and play with language and ideas to find and enhance your own voice. 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, participate in class discussion, and actively engage in writer response activities.. Students will also need to read independently, to maintain a writer's notebook and portfolio, and to reflect on their writing.

**Prerequisite for Creative Writing 2*

Creative Writing 2

Creative Writing 2 provides students the opportunity to take the writing process to the next level. This writing workshop is designed to support and challenge students to go deeper into their creative process. . Students will actively engage in creative exercises as they craft original works in the genre of their choice. Ultimately, students will assemble a cohesive body of work. In true workshop style, students will have the opportunity to share their work and support each other in the creative process.

**Successful completion of Creative Writing 1 is a prerequisite for this course.*

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.

**Prerequisite for Advanced Theater Arts*

Advanced 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.

**Successful completion of Introduction to Theater Arts is a prerequisite for this course.*

Journalism

In this course students will learn the skills necessary to write, edit, photograph, design and publish professional non-fiction stories. We will cover the basic principles of journalism as well as more advanced news and fiction writing and photography and layout techniques. In addition to the studio practices, this class also introduces students to a variety of well-known and historically significant photographers and photographic processes. Students will learn to take part in active discussions and reflections upon their own work and the work of their peers. They learn to identify meaning in

photographs by analyzing the photographer's choices and uses of the elements and principles of design. Through this process we learn to use photography as a medium for visual communication and storytelling.

**Prerequisite for Advanced Journalism*

Advanced Journalism

In this course students will learn the skills necessary to write, edit, photograph, design and publish professional non-fiction stories. We will cover the basic principles of journalism as well as more advanced news writing, photography and layout techniques. Newsroom practices will help students develop writing, editing and leadership skills.

**Successful completion of Journalism is a prerequisite for this course*

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.

FAMILY AND CONSUMER SCIENCE

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

Chefs 1

Chefs 1 blends theory and practice as students learn about 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. They will then explore the building blocks of cooking by learning how to make stocks and sauces. Students will make a ramen bowl from scratch and transform a béchamel sauce into macaroni and cheese. As the course progresses, it will focus on the components of a plated entree. Students will learn about vegetables and starches by making multiple dishes such as vegetable bundles and red bliss mashed potatoes. The poultry unit gives students the ability to learn how to transform chicken into many recipes such as braised chicken thighs and chicken tenders. The course finishes by giving students a chance to apply their newly acquired skills to prepare an entire entrée that they prepare and plate.

**Prerequisite for Chefs 2*

Chefs 2

In Chefs 2, students will expand their culinary knowledge by learning advanced culinary techniques and applying their skills to develop custom recipes. 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, pies, mousses, and decorated cakes. Students will bake products such as Linzer cookies, banana bread, apple pie, and eclairs. The highlight of the unit is when each student has the opportunity to bake and decorate their own cake. The course will also explore advanced savory techniques by learning how to make fresh pizza and pasta. Students will also explore breakfast cookery by making French omelets and eggs benedict. The course ends by focusing on how to prepare proteins such as beef and pork. Students will use a multitude of cooking methods to make dishes such as sautéed pork medallions and French dip sandwiches.

**Successful completion of Chefs 1 is a prerequisite for this course.*

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.

**Prerequisite for Advanced Fashion Design*

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.

**Successful completion of Fashion Design 1 is a prerequisite for this course.*

Personal Growth

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.

HEALTH AND PHYSICAL EDUCATION

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Health

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

Health 2

The objective of this course in health education is to prepare students for adult health and well being. Issues such as adult health concerns, mental and emotional health, addictions and sexuality are investigated. An emphasis is also placed upon global health issues. Students will also learn how to provide emergency care and will develop knowledge and skills for driving safety.

Physical Education

Foundations of Wellness and Fitness

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

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.

Officiating and Umpiring

This coeducational physical education course will focus on team activities (football, basketball, baseball, softball, and volleyball). Students will be highly active while participating in the class activities. In addition, students will learn the mechanics of officiating/umpiring and put their skills to use by officiating the games and competitions during class. This course will encourage student's interpersonal communication, knowledge of the rules, and confidence to be an official/umpire in their community.

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.

FIELD STUDY

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FIELD STUDY (Grade 11 or 12) (0.5 credit)

The Field Study Experience will provide students a unique opportunity to explore a career in a field of interest working with a professional in the industry. The students will expand and apply their classroom knowledge to a real world professional environment while under the guidance/mentorship of an industry professional. At the completion of the semester, students will earn a Pass (P) or Fail (F) for the course based on their performance, which will be evaluated by their mentorship professional and QCHS Pathways Coordinators. Each semester of successful completion will earn the student .5 credits. Students must complete at least .5 credits of a Field Study to receive a Pathways designation from QCHS. Field study will be noted on a student's transcript.

MATHEMATICS

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Algebra 1

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.

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.

**Successful completion of Algebra 1B is a prerequisite for this course*

Algebra 2

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.

**Successful completion of Algebra 1 or Algebra 1B is a prerequisite for this course*

Algebra 2 Honors

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.

**Successful completion of Algebra 1 is a prerequisite for this course*

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.

**Successful completion of Algebra 1 or Algebra 1B is a prerequisite for this course.*

Geometry

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.

**Successful completion of Algebra 1 or Algebra 1B is a prerequisite for this course.*

Geometry Honors

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.

**Successful completion of Algebra 1 is a prerequisite for this course*

AP Calculus AB

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

**Successful completion of Precalculus and Algebra 2 Honors is a prerequisite for this course*

AP 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.

**Successful completion of Precalculus or AP Precalculus is a prerequisite for this course*

AP Statistics

AP 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.

**Successful completion of Algebra 2, Algebra 2 Honors, Geometry, or Geometry Honors is a prerequisite for this course*

Calculus Honors

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.

**Successful completion of precalculus or AP precalculus is a prerequisite for this course*

Precalculus

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.

**Successful completion of Algebra 2, Algebra 2 Honors, or Algebra 2B is a prerequisite for this course*

AP Precalculus

In AP Precalculus, students explore everyday situations and phenomena using mathematical tools and lenses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. They will learn how to observe, explore, and build mathematical meaning from dynamic systems, an important practice for thriving in an ever-changing world

**Successful completion of Algebra 2 or Algebra 2 Honors is a prerequisite for this course*

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.

**Successful completion of Algebra 2, Algebra 2 Honors, or Algebra 2B is a prerequisite for this course*

COMPUTER SCIENCE

AP Computer Science: JAVA

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 prior to taking this course.

**Successful completion of AP Computer Science Principles is a prerequisite for this course*

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.

**Successful completion of Algebra 1 is a prerequisite for this course.*

**Prerequisite for AP Computer Science: JAVA*

Computer Programming

Computer Programming is a full-year intro-level course that teaches the foundations of computer science and basic programming, with an emphasis on helping students develop logical thinking and problem solving skills. This course will highlight areas of data structure using JavaScript with an emphasis on functions, parameters, and event handlers. Students will learn to design basic graphics, animations, and computer-based games. Once students complete the Computer Programming course, they will have learned material equivalent to a semester college introductory course in Computer Science and be able to program in JavaScript.

MUSIC

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High School Chorus

The High School Chorus is open to any high school student who wants to sing in a vocal music ensemble. All 9th graders and first-time choir students will be in the High School Chorus. 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.

Concert Band and High School Chorus

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.

Honors Choir

The Honors Choir is an audition-based choir open to students in grades 10-12 who wish to excel in choral music. Emphasis is placed on developing each student's singing voice, honing advanced music-reading skills, and on performing choral music at the highest level possible. At the center of the Honors Choir's mission is the discovery of a diverse body of choral repertoire from all eras of music history, including living composers. In addition to home concerts, the Honors Choir will participate in away events that may include assemblies for other schools, choral festivals, adjudication festivals, and spring choir tours.

Symphonic Band and Honors Choir

The Symphonic Band and Honors Choir combination course is for students in grades 9-12 who wish to participate in both band and choir. Students will be recommended for this course based on their level of proficiency both as an instrumentalist and as a singer. In addition, band/choir combination students must display a consistently high level of dedication and commitment to the demands of participating in two advanced performing ensembles. Students will follow the course of study requirements for both courses. Since band and choir meet during the same period, students will alternate attending each rehearsal.

Varsity Singers

Varsity Singers is comprised of a select group of students who excel in vocal music. Students from the High School Chorus and the Honors Choir are selected by audition in the Fall. Students will work with pieces of music that require an advanced level of vocal and musical skill. Students will develop and improve their vocal abilities, while also working together to produce cohesive, coherent and artistically-expressive 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 High School Chorus or Honors Choir in order to be eligible to audition for the QCHS Varsity Singers.

AP Music Theory

This course is designed to develop the students 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 best be by integrated approaches to the students' development of: aural skills through listening, sight-singing skills through performance exercises, 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. AP Music Theory is open to any student who is currently enrolled in Instrumental Music or Choral Music. Exceptions for students who are not in band or choir, but have sufficient musical skills to be successful in the course, may be made by the instructor.

Concert Band

The Concert Band is comprised of students in grades 9-12 and focuses on the introduction of basic to intermediate musicianship concepts. The Concert Band performs Grade 2-3 (out of 6) level literature. Participation in the Concert Band requires an audition for placement. Placement requirements will be distributed to all current 8 -11 grade Band students, posted on Canvas, and are available upon request from the Director of Bands.

Symphonic Band

The Symphonic Band is comprised of students in grades 9-12 and meets every day as a full ensemble, year-round, during the school day. Participation in the Symphonic Band requires an audition for placement. The Symphonic Band focuses on developing intermediate to advanced levels of musicianship and performs Grade 3-4 (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.

Wind Symphony

The Wind Symphony (Honors) is comprised of advanced musicians in grades 9-12 and meets every day as a full ensemble, year-round, during the school day. Participation in the Wind Symphony requires an audition for placement. The Wind Symphony 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 Wind Symphony also performs at band festivals, adjudications, and professional conferences, locally, regionally, and nationally, giving students the opportunity to perform for varied audiences. Wind Symphony students participate in at least one of the following activities related to developing advanced musicianship, while also providing for the musical needs of the community: PMEA District Band Auditions, Chamber Groups such as brass quintet, flute choir, etc, Community performances for nursing homes, solo/small ensemble concert at QCHS.

Jazz Ensemble

Jazz Ensemble is comprised of a select group of students who excel in instrumental music who are placed by audition. Students will work with pieces of music that require an advanced level of musicianship and skill on their instrument. Students study jazz harmony, style, and improvisation as they 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, Symphonic Band, or Wind Symphony in order to be eligible to audition for the QCHS Jazz Ensemble.

Panther Marching Band

Panther Marching Band explores the latest trends in the marching arts. Students will develop and improve their musical abilities on individual instruments, while also working together to produce a cohesive and coherent musical and visual production on the field. Panther Marching Band students are required to attend summer rehearsals, band camp in August, and rehearsals every Tuesday and Thursday evening, September - November. The Panther Marching Band performs at every QCHS home and away football game, the Quakertown Halloween Parade and Memorial Day Parade, and at six marching band competitions each fall. The course is held after school hours and students will receive 0.25 credits every year for their participation.

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.

Concert Orchestra

The Concert Orchestra is composed of students in grades 9-12 and focuses on the introduction of basic to intermediate musicianship concepts. The Concert Orchestra performs Grade 2-3 (out of 6) level literature. Participation in the Concert Orchestra requires an audition for placement. Placement requirements will be distributed to all current 8-11 grade Orchestra students, posted on Canvas, and are available upon request from the Director of Orchestras.

Chamber Orchestra

The Chamber Orchestra is composed of students in grades 9-12 and meets every day as a full ensemble, year-round, during the school day. Participation in the Chamber Orchestra requires an audition for placement. The Chamber Orchestra focuses on developing intermediate to advanced levels of musicianship and performs Grade 3-4 (out of 6) level literature. In addition to performing at all Quakertown High School Orchestra Concerts, the Chamber Orchestra also performs at music festivals and adjudications around the area, giving students the opportunity to perform for varied audiences.

Guitar

Guitar will combine creative and traditional approaches for learning and performing music. In this class, students will begin by learning familiar melodies through rote demonstration and imitation. Students will segue to combining rote learning with reading guitar tablature. Students will learn the names of the notes and rhythms they've already been playing. Throughout the course, students will perform in various ensemble situations playing melodies, counter-melodies, chords, and singing with guitar accompaniment. No background in music or reading music is required. This elective will run for one semester.

Piano

Piano will explore correct playing habits and note reading through interval recognition. Students will learn basic keyboard topography and fluent recognition of white key names in relation to black keys. Throughout the course, students will perform simple rhythms and intervallic reading with entertaining songs. Students will progress through learning lines and space notes in treble and bass clefs, melodic and harmonic intervals of 2nds, 3rds, 4ths and 5ths, and graduate to reading on the grand staff. No background in music or reading music is required. This elective will run for one semester.

SCIENCE

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General Science 9

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

BIOLOGY

Biology

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.

Biology Honors

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 9th Grade must be on pace to complete Algebra 2 and Geometry by the end of grade 10.

AP Biology

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 Pride period may be used to supplement laboratory activities and will be required for course credit.

**Successful completion of Biology or Biology Honors and Chemistry or Chemistry Honors are a prerequisite for this course*

CHEMISTRY

Chemistry

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 laboratory report writing, mathematics calculations, and analysis of data to express results for problem analysis.

Chemistry Honors

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.

AP Chemistry

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 PRIDE period may be used to supplement laboratory activities and will be required for course credit.

**Successful completion of Chemistry or Chemistry Honors and Algebra II or Algebra II Honors are a prerequisite for this course*

Introduction to Chemistry

In this course students will focus on gaining a conceptual understanding of chemistry and how they impact real life and industry.

PHYSICS

AP Physics 1

AP Physics 1 is an algebra-based, introductory college-level physics course which students can earn college credit for by taking the AP Physics 1 Exam in May of each year. Students cultivate their understanding of physics through classroom study of concepts such as Projectile Motion, Newton's Laws of Motion, Conservation of Energy, Circular Motion, and Simple Harmonic Motion. Inquiry-based laboratory work is a major component of the course, and students can expect to observe flying pigs, launch model rockets, and analyze roller coasters, to name a few of the tasks performed.

**Successful completion of Geometry is a prerequisite for this course*

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

This Advanced Placement Physics course explores such topics as Fluids, Thermodynamics, Electricity and Magnetism, Optics and Modern Physics. It is a continuation of AP Physics 1 with a more moderately paced, in-depth focus of topics. Labs and hand-on activities include circuit building, leaking bucket labs, optic benches using lenses and mirrors and electrostatic charge generators. This course will prepare students to take the AP Physics 2 Exam.

**Successful completion of Geometry or Geometry Honors, Algebra II or Algebra II Honors, and AP Physics 1 are a prerequisite for this course*

AP Physics C: Mechanics

This Advanced Placement Physics course combines AP Physics 1 principals with basic Calculus to go in more depth and provide exposure to a college Engineering Physics course. The course focuses on Mechanics and prepares the student for the APC Mechanics Exam. We will review content from AP1 and use a variety of labs and hands-on activities to discover and apply new content. With time remaining, we will cover some topics in Electricity and Magnetism. Labs include car collisions, egg bungee jumps and ballistic pendulums.

***Successful completion of Physics I and Calculus or taking Calculus concurrently are a prerequisite for this course*

AP Physics C: Electricity and Magnetism

Electricity and Magnetism is a half-year course following Physics C: Mechanics, is equivalent to a semester-long, introductory calculus-based college course and covers electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices and experimental skills enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for AP Physics C: Electricity and Magnetism students.

**Successful completion of Physics I and Calculus or taking Calculus concurrently are a prerequisite for this course*

Physics

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.

Introduction to Physics

Introduction to Physics engages students with applications from real-world situations to build a strong conceptual understanding of physics principles involving Linear Motion, Newton's Laws of Motion, Conservation of Energy, and Momentum. With this strong conceptual foundation, students are better equipped to make connections between the concepts of physics and their everyday world. Project Based Learning is a major component of the course, and will provide students with authentic, hands-on activities.

SCIENCE ELECTIVES

Anatomy and Physiology

This course is designed for the science-oriented student who has successfully completed Biology. Students will learn the terminology, organization, and structures of each of the systems of the body. These include the skeletal, muscular, cardiovascular, lymphatic, 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.

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.

AP Environmental Science

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 PRIDE period may be used to supplement laboratory activities and will be required for course credit.

**Successful completion of Biology or Biology Honors and Chemistry or Chemistry Honors is a prerequisite for this course*

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.

**Prerequisite for Forensics II*

**Successful completion a Biology and Chemistry course or must be taking a Chemistry course concurrently are a prerequisite for this course*

Forensics II

Forensics II is designed to be the follow-up course to Forensics I and will build on and refine the techniques learned therein. Forensics II will examine more specialized and advanced areas of forensic investigative techniques and give students an expanded view of a career in forensic science. In addition to explorations in criminalistics such as toxicology, handwriting analysis, anthropology, impressions and casting, students will briefly explore the criminology involving serial killers/mass killings and interact with industry experts and professionals.

**Successful completion of Forensics I is a prerequisite for this course*

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

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

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.

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.

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 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

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project.

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.

AP World History

The goal of the AP World History course is to develop a 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.

Political Science

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

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Psychology

Introduction to Psychology is a semester-long course to explore the human experience. The purpose of the course is to better understand yourself and the people around you. Topics include mental illness and therapeutic processes, neurology, sleep and dreams, motivation, memory, and emotions. Students learn methods to overcome fear, how to reduce anxiety and stress, and to communicate better. This course is for the student who wants to gain insight into how to maximize their health by better understanding the mind-body connection and to improve their life.

Sociology and Anthropology

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 students 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

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Women Making History

Women Making History is a course that will focus on the role of women throughout history and in today's society. This course will emphasize women's issues throughout the United States and other areas of the world by studying the roles and expectations of women in various regions and cultures. In addition, students will identify women who have broken social and cultural barriers.

World History

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

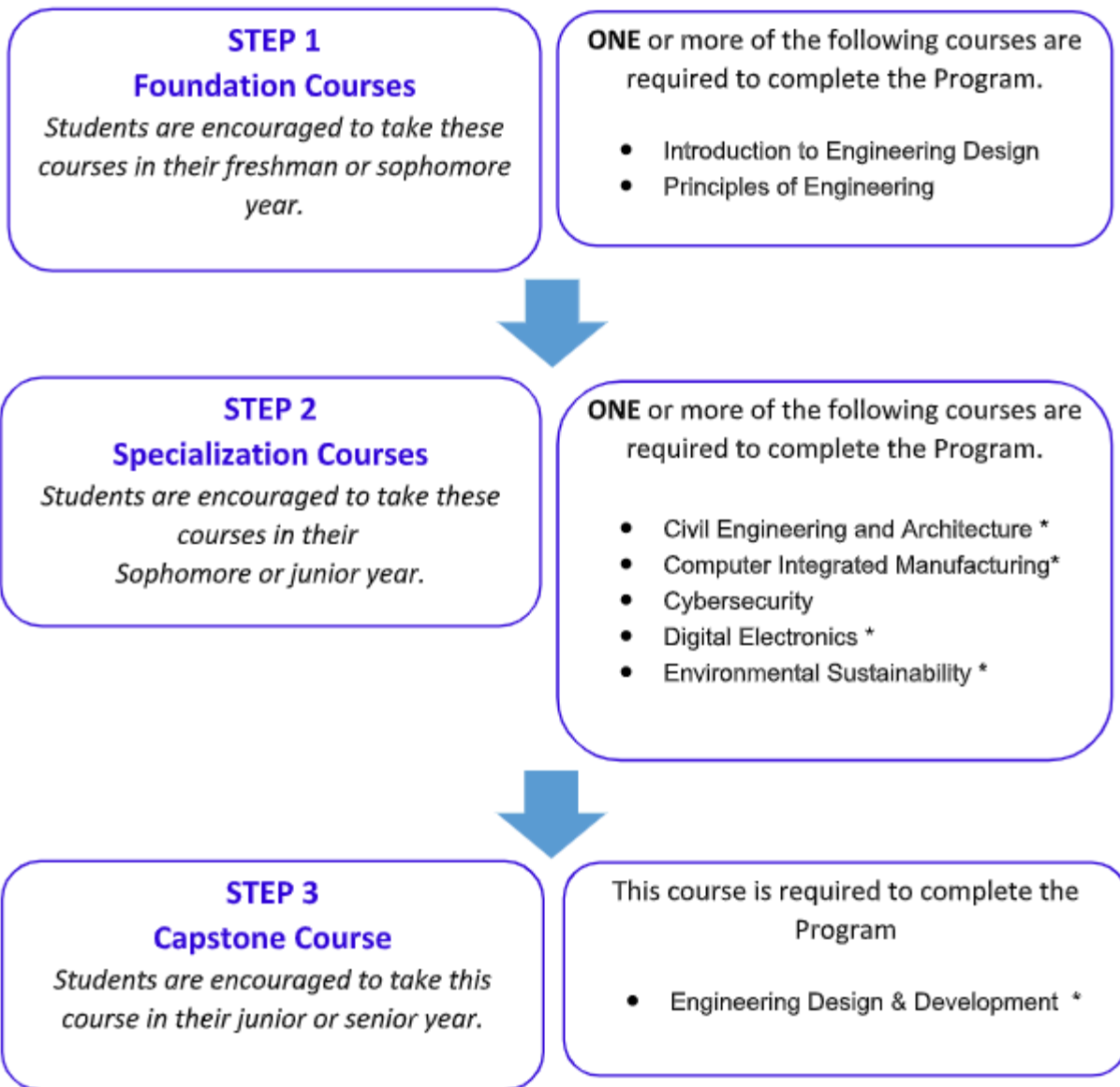
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TECHNOLOGICAL STUDIES

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Project Lead the Way Courses (Honors)

Project Lead the Way (PLTW) is a college recognized pre-engineering program designed to introduce students to careers in Science, Technology, Engineering, and Mathematics (STEM) with an emphasis on engineering. PLTW provides a great opportunity for ALL students to explore the field of engineering and decide if they would enjoy a STEM related career. PLTW courses are part of the STEM and Computer Science Pathway. All of the courses are hands-on classes that use innovative technology to solve real world problems. The courses prepare students for college-level engineering coursework and explore a variety of engineering disciplines. Students are encouraged to complete the entire PLTW program and have the opportunity to earn recognition for their efforts. The program consists 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. Below is the suggested sequence of taking the classes; however a student can benefit by just taking one or two of the courses. For information about current affiliated institutions, refer to the Project Lead the Way website. (Note Prerequisites*)



The above order is the recommended sequence of Project Lead the Way courses;

Cybersecurity (Honors)

PLTW Cybersecurity gives students a broad exposure to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. It inspires algorithmic thinking, computational thinking, and especially, "outside-the-box" thinking. Students explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security.

Civil Engineering and Architecture (Honors)

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.

**Successful completion of Introduction to Engineering Design, Principles of Engineering, or Instructor Approval are a prerequisite for this course*

Computer Integrated Manufacturing (Honors)

This course is one of the specialization courses of the Project Lead the Way program. Through a hands-on approach, students will learn how industry uses computers and robotics. Students will learn about automation using VEX robotics to build and program projects such as an automated guided vehicle. They will also learn about robotic arms and use them to build a simulated factory. Students will learn how to make projects using automated equipment such as a 3d Printer, Laser engraver, and a CNC milling machine. The course will build on previous CAD skills by exploring advanced features and using the CAM portion of the program to create a program for the CNC machine. Using the equipment, students will make projects such as keychains, toys, engraved items, trinket boxes, and more. 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.

**Successful completion of Introduction to Engineering Design or Principles of Engineering is a prerequisite for this course*

Digital Electronics (Honors)

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.

**Successful completion of Introduction to Engineering Design or Principles of Engineering is a prerequisite for this course*

Engineering Design and Development (Honors)

This course is a research and design class that is the capstone course for the Project Lead the Way program. Students will work to create a functional 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 the student identifies a solution, they will create a full set of working drawings and a fully functional prototype of their invention. They will use equipment such as a 3d printer and other tools to build and test a functional prototype. After the prototype is built, they have the opportunity to present their findings to others by creating a portfolio and giving a presentation. This course gives students an opportunity to apply what they learned in all of the other PLTW courses to solve a "real world" problem.

**Successful completion of Introduction to Engineering Design, Principles of Engineering, or one other Specialization course is a prerequisite for this course*

Environmental Sustainability (Honors)

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.

**Successful completion of Biology or Biology Honors, Algebra II or Algebra II Honors, and Introduction to Engineering Design or Principles of Engineering are a prerequisite for this course*

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

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. These include 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. 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 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 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 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.

AP German

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

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

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 Honors

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.

Mandarin 4 Honors

Students move beyond a basic foundation of the Chinese language and culture and begin the study of advanced communication in Mandarin.. Class time is dedicated to interactive activities and literary translations allowing students to practice their learned speaking, listening, reading and writing skills.. This class is conducted in Mandarin.

AP Mandarin

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

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

Spanish Courses

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.

**Prerequisite for AP Spanish Language and AP Spanish Literature and Culture*

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 nonfiction writings;
- the ability to accurately express ideas orally and in writing.

**Successful completion of Spanish 4 Honors is a prerequisite for this course*

AP Spanish Literature and Culture

The AP® Spanish Literature and Culture course is designed to provide students with a learning experience equivalent to that of an introductory college course in literature written in Spanish. The course introduces students to the formal study of a representative body of texts from Peninsular Spanish, Latin American, and U.S. Hispanic literature. The course provides opportunities for students to demonstrate their proficiency in Spanish across the three modes of communication (interpersonal, interpretive, and presentational) and the five goal areas (communication, cultures, connections, comparisons, and communities) outlined in the Standards for Foreign Language Learning in the 21st Century. The overarching aims of the course are to provide students with ongoing and varied opportunities to further develop their proficiencies across the full range of language skills — with special attention to critical reading and analytical writing — and to encourage them to reflect on the many voices and cultures included in a rich and diverse body of literature written in Spanish. The inclusion of “and Culture” in the title of the course reflects a purposeful alignment of the course to a standards-based Spanish curriculum. In particular, the course reflects a meaningful integration of the cultures, connections, and comparisons goal areas of the Standards. Emphasis is placed on approaching the study of literature through global, historical and contemporary cultural contexts. Teachers and students are encouraged to make interdisciplinary connections and explore linguistic and cultural comparisons. A key objective of the course is to encourage students not only to understand and retell the content of the texts they read but also to relate that content to literary, historical, sociocultural, and geopolitical contexts in Spanish.

**Successful completion of Spanish 4 Honors is a prerequisite for this course*

FOCUSED ELECTIVE OPPORTUNITIES

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*All courses below will be two credit elective courses that will run for two periods the entire school year.

Applied Horticulture and Horticulture Operations

This program will focus on the general production and processing of domesticated plants, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with horticulture services; and the basic scientific principles needed to understand plants and their management and care.

Catering and Food Service Professional (Year 1 / Year 2)

This two year program will prepare individuals in production and service used in governmental, commercial or independently owned institutional food establishments and related food industry occupations. Includes instruction in selecting, storing, preparing and serving food and food products; basic nutrition; sanitation, and food safety; the use and care of commercial equipment; serving techniques; and the operation of institutional food establishments. Students will also learn about creating cold and hot food presentations for catered events. Students that completed year 1 of course will have the opportunity to enroll in year 2.

Cinematography and Film Production

This program will prepare students to communicate dramatic information, ideas, moods and feelings through the making and producing of films and videos. Includes instruction in film theory, film technology and equipment operation, film production, film directing, film editing, cinematographic art, film audio, techniques for making specific types of films and/or videos, media technologies, computer image making, multi-media production and the planning and management of film/video operations.

Digital Communications and Media

This program will prepare individuals to apply HTML, CSS, XML, Javascript, graphics applications and other authoring tools to the design, editing and publishing (Launching) of documents, images, graphics, sound and multimedia products on the World Wide Web. Includes instruction in Internet theory, web page standards and policies, elements of web page design, user interfaces, vector tools, special effects, interactive and multimedia components, search engines, navigation, morphing, e-commerce tools, and emerging web technologies.

Engineering and Engineering Technology

This program will prepare individuals to apply knowledge and skills in the engineering field. Instruction includes, but is not limited to safety, ethics, power, problem solving, teamwork, engineering graphics, automated systems, fundamental electronics, manufacturing systems as well as adhering to the STEM initiative. Students will gain hands-on experience by learning how to use 3d printers, laser engravers, robot arms, Vex robotics, and automation cells.

Job-Seeking and Changing Skills

This program will provide an important link between the classroom and the workplace for students. It will enhance and add relevance to classroom learning. High school students often find learning on an abstract level challenging and learn more readily when they see the theory in operation and have an opportunity to practice what they are learning. The CO-OP is essentially a partnership that links school, community, and business/industry to provide a real-world environment in which students are given the opportunity to apply, and thereby enhance, the knowledge and skills obtained in the classroom.

Public Safety

This program will prepare individuals to apply technical knowledge and skills required to perform entry-level duties in law enforcement, fire fighting, EMT and other safety services. This program stresses the techniques, methods and procedures peculiar to the areas of criminal justice and fire protection especially in emergency and disaster situations. Physical development and self confidence skills are emphasized due to the nature of the specific occupation(s). In addition to the application of mathematics, communication, science and physics, students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication.

Teacher Preparation Program (Year 1 / Year 2)

This two year program will focus on the general theory and practice of learning and teaching, the basic principles of educational psychology, the art of teaching, the planning and administration of educational activities, school safety and health issues, and the foundations of education. Students that completed year 1 of course will have the opportunity to enroll in year 2.

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 counseling office in May of each school year. Examples of Advanced Placement Tests frequently taken include English Language, English Literature, European History, US History, World History, Calculus, Physics, Music Theory, US Government and Politics, Psychology, Computer Science and World 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.

Dual Enrollment

Quakertown Community High School has established academic partnerships with the following collegiate institutions: Harrisburg University, Arizona State University, Pittsburgh University, and Bucks County Community College. These collaborations signify a commitment to providing QCHS students with exceptional educational opportunities and pathways for future success. Through these partnerships, students will be offered a diverse range of courses that align with the rigorous standards and educational objectives set by each respective institution. Specific details regarding the courses will be made available to our students and will be shared at a later time.

English Language Development

The ELD 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 ELD level through consultation with the ELD staff. Pennsylvania's English Language Development Standards for English Learners (ELDS for ELs) have been carefully developed to meet compliance with federal requirements by providing a framework for standards-based instructional and assessment planning for ELs so that they may attain English proficiency, develop high levels of academic attainment in English, and meet the same challenging academic content standards that all children are expected to meet. 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.

Multiple Disabilities Support Program

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

Programs for Learning Support and Emotional Support Students

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

Program options include itinerant resource room support, co-taught general education classes in the core academic areas, and learning/emotional support classes in English and Math. Variations are possible based on individual student needs. Students and parents are encouraged to work with a special education teacher and a 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 Counseling Department for further information about these programs.

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

Related Service personnel are available to provide for the needs of students with specific disabilities (i.e. hearing, vision, speech, mobility training, physical therapy, occupational therapy). The IEP Team determines the program/services needed to provide an appropriate education.

Upper Bucks County Technical School Course Offerings

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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. Please note that programs can accommodate students for 1, 2, 3 or 4 years. Consult with school counselors for details. Click on the course names below for more information.

Full List

- [Agricultural Technology and Life Sciences Academy](#)
- [Auto Collision Technology](#)
- [Automotive Technology](#)
- [Baking & Pastry Arts](#)
- [Career Internship Program](#)
- [Carpentry](#)
- [Computer Networking and Cyber Security](#)
- [Construction Technology](#)
- [Cosmetology](#)
- [Culinary Arts](#)
- [Dental Careers](#)
- [Diesel Equipment Technology](#)
- [Electrical Technology](#)
- [Exercise Science and Sports Technology](#)
- [Graphic Communications](#)
- [Health Care Careers](#)
- [HVAC-R](#)
- [Law Enforcement - Police Science](#)
- [Machining and Engineering Technologies](#)
- [Mechatronics](#)
- [Small Engine Technology](#)
- [Veterinary Assisting](#)
- [Welding & Fabrication Technology](#)

Upper Bucks County Technical School

3115 Ridge Road, Perkasie, PA 18944

215-795-2911

Glossary

Terms

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Advanced Placement (AP) Course	(see Course, Advanced Placement (AP))
Anchors	<p>In an effort to provide greater clarity to the field about the assessment system and to better align the assessments to standards and instructional materials, the Department facilitated the development of Assessment Anchors. The Assessment Anchors clarify the standards assessed on the PSSA and Keystone exams and are used by educators to help prepare students.</p> <p>Source: https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Keystones/Pages/AssessmentAnchors.aspx</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: Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning. Huba and Freed (2000)</p> <p>Types of assessments used in QCSD include but are not limited to quizzes and tests, project-based assessments, and performance-based assessments.</p>
Assessment, Embedded	<p>Embedded Assessments are performance-based assessments built around the PA Common Core and/or College Board that measure evidence of mastery of skills and knowledge visually, orally and in writing; assessment-specific scoring guides set clear expectations for students.</p> <p>Source: http://springboardprogram.collegeboard.org/</p>
Assessment, Formative	<p>Formative assessments take place throughout the school year. They 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: https://www.pearsonassessments.com/large-scale-assessments/k-12-large-scale-assessments/types-of-assessments.html</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®, dual enrollment, honors, college-preparatory or regular courses) and the grade the student earns. The compilation of courses and grades is converted to an overall grade point average (GPA), and the higher the GPA, the higher the student's class ranking.</p> <p>Source: http://professionals.collegeboard.com/guidance/applications/rank</p> <p>More information about class rank can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsc.org/counseling/guidance_homepage</p>
Course, Advanced Placement (AP)	<p>The College Board's AP courses are college-level classes in a wide variety of subjects. They offer challenging coursework and a taste of what college classes are like.</p> <p>Source: https://bigfuture.collegeboard.org/get-in/testing/learn-about-the-ap-program</p> <p>QCSD students have the opportunity to take a variety of AP courses.</p>
Course, Core Academic	<p>The QCSD Board policy defines core courses as English, Mathematics, Science, and Social Studies.</p>
Course, Dual Enrollment	<p>A dual enrollment course is an opportunity for students to earn college credit while still in high school.</p> <p>Dual enrollment programs are offered to QCSD students through the Bucks Community College, Arizona State University, Harrisburg University, University of Pittsburgh 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>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	A General Interest Course is a category of courses in the QCSD Program of Studies document that includes World Language courses and Music courses.
Course, Specialized Interest	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, and Technological Studies.
Course Quality Points	Grade points, also known as quality points, are assigned based on a numerical indicator of achievement.
Credit	A credit is the recognition for having taken a course at school or university, used as measure if enough hours have been made for graduation.
Cyber	Online learning, education in which instruction and content are delivered primarily over the Internet.
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: https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Keystones/Pages/AssessmentAnchors.aspx</p> <p>Eligible content guides QCSD curriculum development, instruction and assessment practice.</p>
Fail	To receive less than the passing grade or mark in an examination, class, or course of study.
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>More information about GPA can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsd.org/counseling/guidance_homepage.</p>
Grade Point Average, Cumulative	<p>Cumulative Grade Point Average (GPA) refers to the overall GPA, which includes dividing the number of quality points earned in all courses attempted by the total credit hours in all attempted courses.</p> <p>Source: http://gpacalculator.net/how-to-calculate-gpa/cumulative-gpa/</p> <p>More information about Cumulative GPA can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsd.org/counseling/guidance_homepage</p>

Grade Point Average, Unweighted	<p>The unweighted GPA is the average of all class grades based on a 4.0 scale. If the student earned an "A" in an advanced English class, the unweighted grade would still be a 4.0-- the corresponding number on standard grade conversion charts--instead of, for example, a (weighted) 4.5. Regardless of class level, each class is graded on the same point system.</p> <p>Source: http://www.scholarships.com/blog/college-culture/weighted-vs-unweighted-gpa/37/</p> <p>More information about Unweighted GPA can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsd.org/counseling/guidance_homepage</p>
Grade Point Average, Weighted	<p>In QCSD, certain courses are identified as weighted courses. The students' final <u>quality points</u> reflect the identified weighting.</p> <p>More information about Weighted GPA can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsd.org/counseling/guidance_homepage</p>
Honor Roll	<p>To be eligible for Honor Roll status in any marking period, a student must obtain a grade point average of 3.5</p> <ul style="list-style-type: none"> - No grade lower than a "C" <p>Sources: https://hs.qcsd.org/our_school/qchs_student_handbook</p> <p>More information about Honor Roll can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsd.org/counseling/guidance_homepage</p>
Honor Roll, Distinguished	<p>To be eligible for Distinguished Honor Roll status in any marking period, a student must obtain a grade point average of 3.75</p> <ul style="list-style-type: none"> - No grade lower than a "B" <p>Source: https://hs.qcsd.org/our_school/qchs_student_handbook</p> <p>More information about Distinguished Honor Roll can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsd.org/counseling/guidance_homepage</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: https://www.education.pa.gov/K-12/Homebound%20Instruction/Pages/IEPs-and-504-Service-Agreements.aspx</p>

National Collegiate Athletic Association (NCAA)	<p>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.</p> <p>Source: https://www.ncaa.org/</p> <p>More information about NCAA can be shared by QCSD Guidance Counselors using their contact information at https://hs.qcsc.org/counseling/guidance_homepage</p>
Pass-Fail	<p>A pass/fail grading system is one in which the student receives either a passing grade or a failing grade.</p> <p>Source: http://classroom.synonym.com/advantages-pass-fail-grading-system-2561</p>
Pennsylvania Core (PA Core)	<p>Academic standards for English language arts and mathematics based upon a Nationwide, state-led process coordinated by the National Governors Association and the Council of Chief State School Officers and in collaboration with teachers, content experts and other education stakeholders. The standards define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school able to succeed in entry-level, credit-bearing academic college courses and in work-force training programs.</p> <p>Source: https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/022/chapter4/s4.3.html&d=</p>
Pennsylvania Department of Education (PDE)	<p>The mission of the Department of Education is to ensure that every learner has access to a world-class education system that academically prepares children and adults to succeed as productive citizens. Further, the Department seeks to establish a culture that is committed to improving opportunities throughout the commonwealth by ensuring that technical support, resources, and optimal learning environments are available for all students, whether children or adults.</p> <p>Source: https://www.education.pa.gov/Pages/Mission.aspx</p> <p>QCSD implements curricular, instructional and assessment standards and practices as outlined in Chapter 4 of the Pennsylvania School Code.</p>
Prerequisite	<p>Certain advanced and/or technical QCSD courses require students to pass identified courses that teach foundational skills upon which the advanced course is built.</p>

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