Twin Valley High School

Program of Studies 2018-2019

Every Student, Every Day
A Message from the Principal

The Twin Valley High School course catalog has been developed through a collaborative process involving your teachers, counselors, and administrators. Our goal is to meet the changing needs of every student while providing each of you the necessary 21st century skills required to be successful.

It is important for you to take time to review the course catalog with your parents or guardians. Our counselors, teachers, and administrators will be happy to provide you the appropriate resources and support as you reflect on your future goals and make your final course selections. Regardless of your path following graduation, we urge you to select courses that will challenge you to learn and grow while meeting your needs and addressing your areas of interest. We have a wide range of electives to choose from; however, you may not get your first choice of electives as enrollment determines which elective courses will run.

We are committed to providing you the support you need to have a great high school experience.

Sincerely,

William L. Clements
Principal, Twin Valley High School

School Board of Directors

Mr. Gary McEwen, President
Mr. Stephen Rucci, Treasurer
Mr. John Burdy
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Mrs. Carole Chappelle

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High School Administration

Mr. William Clements, Principal
Mr. Matthew Barber, Assistant Principal

Mrs. Kelly Edwards, Assistant Principal
Mr. John Guiseppe, Athletic Director

High School Counselors

Each student is assigned to a Twin Valley High School counselor by the first letter of their last name:

- Mrs. Tiffany Perricone, A – Fa
- Dr. Michele O’Brien, Fb – La
- Mrs. Diana Gilbert, Lb – Re
- Mrs. Donna Larson, Rf – Z
- Mrs. Cynthia Murray, Transition Coordinator
- Mrs. Randy Waterman, Guidance Secretary
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**Academic Information**

**Graduation Requirements**
A student must earn twenty-four (24) credits in grades nine (9) through twelve (12) in order to be eligible for graduation. A minimum of four (4) of the total credits must be in English, four (4) in Social Studies, four (4) in Mathematics, four (4) in Science, and six (6) in elective courses. A student must also earn a total of two (2) credits in the area of Physical Education, Health, and Wellness.

*Additional requirements pursuant to 022 Pa. Code § 4.24:* Beginning in the 2019-2020 school year, students shall demonstrate proficiency in Literature, Algebra I, and Biology on the associated Keystone Exam or related project-based assessment.

**Course Selection**
Students will receive a course selection sheet on which they shall indicate the courses in which they wish to be scheduled. The course selection sheet requires the signature of a parent/guardian. High school students will also receive instructions on how to complete the course selection process electronically. The following may be considered:

- **Course Acceleration:** Students may choose to take two levels of core course in their freshman, sophomore or junior year. This “doubling-up” provides the student with more flexibility in subsequent years, including the opportunity to take some of the Advanced Placement courses offered at Twin Valley High School.

- **Year-long Mathematics:** Some students may benefit from a slower-paced, remedial study of mathematics. If a student is recommended for year-long mathematics (Algebra I or Geometry), the student will earn two credits in the same mathematics course. This option should be discussed with the student’s teachers and high school counselor.

- **Early Graduation:** It is possible for a student to satisfy Twin Valley High School’s graduation requirements one or more semesters early. Students who are considering graduating prior to June of their senior year should discuss this with their high school counselor as soon as possible.

**Dropping & Adding Classes**
The deadline for requesting schedule changes will be included with the release of 2018-2019 class schedules. Requests to change academic levels (i.e. honors level to academic) will be entertained within the first five (5) days of the course. Such requests require administrative approval. Withdrawals approved after the first five (5) days of the course will be listed on the student’s transcript.

**Course Failures**
A failing grade in a required course necessitates that the course be taken again. This may occur in one of three ways: retaking the course the following semester if the student’s schedule allows, retaking the course through a school approved online provider during the school year, or retaking the course through a school approved online provider during the summer. Each online course requires administrative approval; families will incur the cost of tuition for any online course.

**Academic Course Levels**
Each course at Twin Valley High School falls into one of three levels: Advanced Placement, Honors, or Academic. These levels allow students to choose the appropriate challenge and rigor as they consider...
their post-secondary future. The following descriptions will help students and parents select the appropriate level.

**Advanced Placement® (AP):** These courses are academically demanding and challenging. Students who plan to enroll in an honors level college program or those who are interested in exploring a subject at the most challenging level should consider taking courses at the AP® level. Students receive weighted credit for courses at this level. Many colleges will grant college credit for AP® courses if you take the AP® Exam and receive a score of 3 or higher. Teacher/counselor recommendation is encouraged to enroll in AP® courses.

**Honors (H):** Honors level courses will cover more material in greater depth, and demand more work than academic level courses. Students must be committed to fulfilling all course requirements. Students choosing honors level courses should have a strong academic record and a desire to attend a competitive four-year college. Students receive weighted credit for honors level courses.

**Academic:** With the implementation of the Pennsylvania Core Standards, rigor is demanded at all levels – including academic. Courses at this level will provide a strong academic background in order to prepare students for career and/or college readiness.
Grade Reporting
At the conclusion of each course, a letter grade is recorded based on the student’s numerical grade as follows:

<table>
<thead>
<tr>
<th>Numerical Grade</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-100</td>
<td>A</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
</tr>
<tr>
<td>60-66</td>
<td>D</td>
</tr>
<tr>
<td>0-59</td>
<td>F</td>
</tr>
</tbody>
</table>

Each letter grade corresponds to a number of quality points per credit. Due to the higher demands and increased rigor inherent in Honors (H) and Advanced Placement® (AP) courses, those courses are considered to be “weighted” and thus receive a higher number of quality points.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic</td>
</tr>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>

A student’s Grade Point Average (GPA) is calculated by dividing the total number of quality points earned by the total number of credits attempted. Class rank is determined by GPA and is reported at the end of each semester.
**English** - 4 credits required; students must take an English class each year

- English 9*
- English 10*
- English 11* or AP® Eng Lang or AP® Eng Lit
- English 12 or AP® Eng Lang or AP® Eng Lit

**Science** – 4 credits required; AP® Biology (2 credits) satisfies both the biology and elective requirements

- Physics*
- Chemistry*
- Biology * or AP® Biology (2.0)
- Science Elective or PLTW class or Ag Class or BCTC

**Health/PE** – 2 credits required

- Wellness (0.5)
- Health (0.5) & PE 10 (0.5)
- PE 11 (0.5)

**Math** – 4 credits required; students completing Algebra I in 8th grade may begin HS math with Geometry

- Algebra I
- Geometry*
- Algebra II*
- Precalculus* or Algebra III or Stats/AP® Stats or Fin. Literacy or Comp Sci I
- Calc/AP® Calc or Stats/AP® Stats or Fin. Literacy or Comp Sci I

**Social Studies** – 4 credits required; AP® U.S. Government & Politics (1 credit) satisfies both the political science and elective requirements

- US History I*
- US History II* or AP® US History
- International Studies*
- Political Science (0.5) or AP® U.S. Government & Politics*
- Elective (0.5)

*Indicates that the course is offered at both the academic and honors levels  |  *This course satisfies the 0.5 credit elective requirement

These flow charts outline the typical progression toward the completion of TVHS graduation requirements. Students must also earn six additional elective credits. Students considering acceleration or taking these courses in a different order should discuss their options with their high school counselor.
Special Programs

Dual Enrollment Opportunities

**Online or on college campus:** Students looking to get an early start on college while still in high school have the option of taking college courses while also receiving high school credit through Penn State-Berks, Delaware County Community College, Reading Area Community College, and Albright College. Students may elect to take one or more courses through these colleges (online or on college campus) in lieu of high school courses. Students will incur tuition costs for these courses and are responsible for their own daily transportation to the college campus, if applicable. Students considering this option should speak with their high school counselor.

**At Twin Valley High School:** Students in grades 10-12 have the opportunity to earn 3 college credits per course while also receiving high school credit through the Business and Computer Technology, World Language, and Visual Arts departments. These courses are offered in conjunction with Reading Area Community College and taught by Twin Valley staff at Twin Valley High School. There is an approximate fee of $300.00 to receive college credit for these courses (see course descriptions for more details). Look for the RACC icon to indicate these courses.

**Thaddeus Stevens College of Technology:** Thaddeus Stevens College of Technology in Lancaster, PA is offering an Early Enrollment Program for high school seniors. The program is full time and classes are solely on the TSCT campus; students must provide their own daily transportation. Students can complete their senior year of high school and their first year of college concurrently through this program. Students must enroll during their junior year, and should have the following qualifications: GPA of 2.5, SAT® Math Score 530, SAT® Reading Score 480. Financial aid is available. Thaddeus Stevens is a Nationally Ranked Two Year College. Students considering applying to this program should speak with their high school counselor; the 0.5 credit Political Science requirement will be waived for students in this program.

Blended Learning

Blended courses at Twin Valley High School are designed to include student-centered learning that balances face-to-face activities with out-of-class opportunities—including online learning—to gain an in depth understanding of content. Teachers of blended courses may schedule days where physical attendance is optional. The following icon indicates a course that may be scheduled with a blended option.

Career and Technical Education

Career and Technical Education (CTE) programs motivate students of all academic achievement levels to work hard and advance their learning across academic and technical subject areas. Furthermore, CTE can help all students, including those who intend to pursue postsecondary education, develop a clear game plan for their future and understand how education can lead to a fulfilling and productive career. The Berks Career and Technology Center (BCTC) primarily serves Twin Valley students residing in Berks County while the Brandywine Campus of Technical College High School (TCHS) primarily serves Twin Valley students residing in Chester County. Students receive information about applying to BCTC and TCHS in the fall of their 9th grade year. Any student considering career and technical education should discuss the option with their high school counselor. Students enrolled in BCTC or TCHS will be waived 0.5 PE credit and 1.0 Science credit. Transportation is provided. See pages 56-57 for more information.
**Internship**

Students in grades 11 and 12 interested in any of the TVHS Career Pathways can gain experience in a particular career area such as a business, a non-profit organization, a K-8 educational setting, or some other workplace. This program will prepare our students for a career, help them examine their career interests, and explore avenues for continuing post-secondary education. Students are assigned to a workplace environment for 1 or more blocks each day to complete their internship for academic credit (see course descriptions for more details). Students assigned to off-campus internships must provide their own transportation.

**Flexible Scheduling**

Juniors and seniors in good standing may choose a flexible scheduling option. Students exercising this option will not be scheduled for a class during either first or fourth period. Students must have parent/guardian approval and are responsible for their own transportation – students should not be on-campus during their flexible-schedule period. Flexible scheduling may only be selected once per semester. Flexible scheduling is listed as course number 792.

**Gifted Support**

Twin Valley High School offers support to gifted students through the services of our gifted support teacher. We provide this service to students identified as gifted as an extension to the curriculum the students receive in regular classes. The gifted support teacher works with these students individually and in groups to provide enrichment to the regular curriculum.

**Project Lead the Way (PLTW)**

Project Lead the Way (PLTW) is the nation’s leading provider of K-12 STEM programs. PLTW’s success in preparing students with the knowledge and skills they need to succeed in our global economy has been recognized by colleges and universities, Fortune 500 businesses, and national organizations. Any PLTW course can be used as science elective credit.

**Special Education**

Twin Valley High School provides learning support and gifted support for those identified students who qualify for specially designed instruction. Referral, testing, and placement in support services occurs through evaluation by a team of educational professionals. Parent, teacher, counselor, principal, or student may request an evaluation to determine the need for Special Education. Co-taught classes in Language Arts, Math, Social Studies, and Science, as well as transition services and information, will be offered in accordance with the Individualized Education Plan (IEP) of eligible students. Please contact the building principal or counselor with specific questions relating to special education services.

Certified Special Education teachers deliver our Special Education services and provide academic support for students identified as having a learning disability. All Special Education services are done in accordance with Pennsylvania’s special education regulations.
Business and Computer Technology

Focused on the future, the business and computer technology curriculum parallels the practices implemented in the global marketplace. The curriculum includes emerging, expanding and challenging courses that develop the knowledge and skills necessary for students to succeed in college and career. The internship program allows students to bridge their learning from classroom to workplace. Twin Valley High School has partnered with Reading Area Community College to offer a number of courses for dual high school and college credit.

Business Principles: Grades 10-12 – 1 credit (401)
This course is a survey of the structure of business—its principles, activities, and challenges. It is designed to provide students with an overview of business careers and a working knowledge of business terminology. The course covers facets of business such as ownership, management, production, marketing, human resources, accounting and information systems, economics, legal issues and ethics, and social responsibility. Students have the option to receive dual enrollment credits with Reading Area Community College for a $300.00 fee.

Business Management: Grades 10-12 – 1 credit (402)
This course provides an introduction to the major functions of management—planning, organizing, staffing, leading, and controlling. Emphasis is also given to the related topics of communication, decision making, organizational culture, teamwork, corporate social responsibility, and interpersonal relations. Students have the option to receive dual enrollment credits with Reading Area Community College for a $300.00 fee.

Accounting Principles: Grades 9-12 – 1 credit (421)
The principles of financial accounting are introduced by the study of the accounting cycle for service and merchandise companies. Emphasis is on analyzing transactions, summarizing them through the use of the general ledger and reporting the results through the preparation of financial statements. The fundamentals of accounting for inventories, accounts receivable, fixed assets, long-term liabilities, internal control, and corporate entities are stressed.

Advanced Accounting: Grades 10-12 – 1 credit (422)
Prerequisite: Accounting Principles
This course is designed to provide a continuation of financial accounting topics for students who have completed Accounting Principles. Emphasis in the course is placed on using financial accounting information for decision making. Accounting theory of all commonly used accounts such as cash, investments, receivables, inventory, fixed and intangible assets, payables, bonds, and stocks are studied, as are accounting systems and controls, financial statement preparation, and analysis. Students will be introduced to the accounting cycle through computerized software. Students interested in careers in the Finance and Accounting and Business and Entrepreneurship Pathways will gain fundamental skills and concepts in this course. Students have the option to receive dual enrollment credits with Reading Area Community College for a $300.00 fee.

Personal Finance: Grades 9-12 – 0.5 credit (405)
This course focuses on how to manage personal finances including savings, credit, goal setting, and personal income taxes. Career exploration will allow students to plan for budgeting now and in the future. There is also an in depth look at the use of investments to increase personal wealth. Return on investing, liquidity, risk, and the importance of diversification will be emphasized. Units on the stock market, fixed-
income investments and mutual funds as forms of personal and corporate investment strategies are included. Students participate in an on-line Stock Market Game, competing against each other to determine the daily trading and purchasing winner.

**Entrepreneurship: Grades 9-12 – 0.5 credit (456)**

In Entrepreneurship, students will learn how to start a business, market products and services, manage employees, and find the financial support critical for new business ventures. As a new entrepreneur, students will complete and present a business plan necessary for obtaining a loan. Students will complete an analysis of an industry and explore challenges of competition.

**Sports and Entertainment Marketing: Grades 9-12 – 0.5 credit (403)**

Sports and Entertainment Marketing is a unique and innovative course designed for students with an interest in the sports and entertainment industry or marketing in general. This course stresses the utilization of fundamental marketing concepts and will include an orientation to the sports and entertainment industry. Marketing strategies along with topics in sponsorship, pricing, marketing research, endorsements, and promotions will be part of this course. The course will develop critical thinking, decision making and communication skills through real world applications.

**Keyboarding/Microsoft Applications: Grades 9-12 – 0.5 credit (411)**

In this course students will learn to use the basics of Word, Excel, and PowerPoint, while learning the proper touch typing method to improve typing speed and accuracy. Using an online typing tool, students will perfect the use of standard keyboarding and will learn to type without looking at the keys. Students will also learn about digital citizenship focusing on the responsible use of technology, online safety, and the dangers of cyber bullying.

**Web Design and Development: Grades 10-12 – 1 credit (442)**

This course will show you how to design and develop attractive and interactive web sites using both a WYSIWYG (What you see is what you get) application as well as programming in HTML, CSS, and JavaScript. Students learn how to plan and design a web site using fundamental web design principles. Students also learn several criteria to evaluate and analyze web page designs. The course focuses on creating sites that are user oriented and which access information easily and quickly. Additional topics include effective use of color and graphics, page layout techniques, navigation, publishing and maintaining web sites. Students will learn how to design a web site that is user-friendly, keeping viewers from closing the page right away. *Students have the option to receive dual enrollment credits with Reading Area Community College for a $300.00 fee.*

**Computer Science I: Grades 9-12 – 1 credit (243)**

Students will have the opportunity to create programs, games, and business applications. Students will learn how to design and develop systems using an Integrated Development Environment (Visual Studio) and the object oriented C# (C sharp) programming language. Students will also learn how to design and create Graphical User Interfaces (GUI) using different types of programs and coding languages. Successful completion of this course satisfies one of the four required mathematics credits.

**AP® Computer Science Principles: Grades 10-12 – 1 credit (244)**

**Prerequisite: Computer Science I**

Introduces students to the central ideas of computer science, instills the ideas and practices of computational thinking and invites students to understand how computing changes the world. This
rigorous course promotes deep learning of computational content, develops thinking skills, problem solving and engages students in the creative aspects of the field. Students will have the opportunity to take the AP® Computer Science Principles Exam. This course is strongly recommended for students pursuing the Computer Sciences Pathway.

**Internship: Grades 11-12 – 0.5 Credit/Block/Quarter (782)**

Students in grades 11 and 12 interested in any of the TVHS Career Pathways can gain experience in a particular career area such as a business, a non-profit organization, a K-8 educational setting, or some other workplace. This program will prepare our students for a career, help them examine their career interests, and explore avenues for continuing post-secondary education. Students are assigned to a workplace environment for 1 or more blocks each day to complete their internship for academic credit. Students assigned to off-campus internships must provide their own transportation.

Students who intend to enroll in this program must complete all paperwork by the end of the current school year. Students must secure an approved training station/mentor/employer by the first day of the new school year; otherwise, the student will be scheduled for a full academic schedule. Please choose alternate electives in case your internship assignment does not schedule.
English Language Arts

Language Arts in the Twin Valley School District is organized as a continuum K-12. This cutting edge design was developed with expectations for learners to participate in a variety of reading, writing, research, speaking, and listening activities that enhance and develop skills in all of the aforementioned areas. Successful independent readers with real life literacy skills are the goal.

All High School students are expected to complete a reading assignment over the summer. Writing benchmarks on the summer reading texts will be administered the beginning of English class for all students.

In addition, Honors and Advanced Placement courses are offered to further prepare those who excel in English and may wish to pursue a postsecondary education at a competitive college. Students who wish to take AP® English Language and Composition or AP® English Literature and Composition may take either course during their 11th or 12th grade year to count towards their English requirement. Honors and Advanced Placement courses require additional summer reading and written assignments. Although not mandatory, it is encouraged that those students taking the Honors and Advanced Placement level courses for the first time have earned an A at the academic level and have a recommendation from a previous English teacher.

English 9: Grade 9 – 1 credit (002)

A focus on text structures and forms are the foundation for English 10, 11 and 12. Components of the first year of High School English include Independent Reading, Reading Workshop, Writing Workshop, Speaking and Listening, and Research. Learners read from a wide range of materials and genres at their independent reading levels to practice strategic reading. Mini-lessons in book selection, reading journals, book talks, and reading strategies are key instructional practices in Independent Reading. Reading Workshop focuses on read-aloud, shared readings, guided comprehension, literature circles, speeches, poetry, plays and word studies. Units of study may include but are not limited to mythology and short stories. Writing Workshop focuses on the writing process, journal writing, scribing, shared writing, teacher-directed writing, and self-selected writing. Independent and small group work is integral to the success of the workshop setting. Speaking and Listening is also an integral part in any classroom and is emphasized through formal and informal speaking and listening. These skills are facilitated by means of conversation, and student-centered discussions. Finally, information-literate students access, evaluate, and use information efficiently and effectively. Learners practice the research process that is co-taught by the librarian and the classroom teacher. Projects that explore authentic, real-world problems and discovery are encouraged.

English 9 Honors: Grade 9 – 1 credit (001)

It is assumed that prospective English 9 Honors students desire a more intensive course of study and are highly motivated readers and writers. Learners can expect a faster paced course that covers more material and in greater depth than English 9 classes. Extensive outside reading and writing will be required. A summer reading assignment is required upon entrance to the course, and it will be used to gauge the level and needs of the incoming student.
English 10: Grade 10 – 1 credit (012)
The focus for English 10 is examining genres. Readings reflect American Literature from pre-19th century through Modernism. Components of the second year of High School English complement and include Independent Reading, Vocabulary and Grammar, Reading Workshop, Writing Workshop, Speaking and Listening, and Research begun in ninth grade. Using a wide range of materials, students will explore multiple genres and develop their critical thinking skills. Mini-lessons and analysis on multiple genres are key instructional practices in grade 10. Speaking and listening, is emphasized through formal and informal opportunities. These skills are facilitated by means of prepared formal speeches, informal conversation, and student-centered discussions. The PA Keystone Exam for Literature will be given at the completion of this course.

English 10 Honors: Grade 10 – 1 credit (011)
It is assumed that prospective English 10 Honors students desire a more intensive course of study and have demonstrated superior achievement in literacy. In addition to strengthening vocabulary skills and developing students’ craft for writing, English 10 Honors focuses on literary movements. Students are required to analyze literature on a deeper level utilizing relevant and critical research. Much of the literature associated with English 10 Honors relates to the literary movements of Puritanism, Romanticism, Transcendentalism, Realism, Naturalism, and Modernism, and students will be required to clearly understand the historical context of specific literature in terms of the characteristics of individual literary movements. Learners can expect an accelerated course that covers additional material in greater depth than English 10 classes. Extensive outside reading and writing will be required. Summer reading assignments are required upon entrance to the course, and will be used to gauge the level and needs of incoming student. The PA Keystone Exam for Literature will be given at the completion of this course.

English 11: Grade 11 – 1 credit (022)
Components of the third year of High School English include Independent Reading, Reading Workshop, Writing Workshop, Speaking and Listening, and Research. Growth in reading and writing is the focus of the 11th grade year. Specifically, the English 11 course includes the identification and analysis of literary voice in terms of historical context within literature. Units of study may include, but are not limited to, the exploration, interpretation, and analysis of the novel The Great Gatsby, the voice of the Harlem Renaissance, as well as contemporary and classic dramas. Students will not only analyze the writing of various authors, but they will develop and critique their own voice through extensive writing assignments. Vocabulary and grammar skills are a daily element of the course as well as key research strategies and integration of relevant research. Speaking and Listening, which is also an integral point in any classroom, is emphasized through formal and informal communication opportunities. These skills are facilitated by means of prepared formal speeches, informal conversation, and student-centered discussions. Finally, information-literate students access, evaluate, and use information efficiently and effectively. Projects that explore comparative literature are encouraged, as well as projects that facilitate inquiry into real world problems.

English 11 Honors: Grade 11 – 1 credit (023)
The goal of English 11 Honors is to further develop the skills and concepts introduced in English 10 Honors. Since the English 11 Honors course is demanding and intensive, it is intended for students who desire to take advanced level English classes in the future, or for students who exhibit a special interest or proficiency in English. It is encouraged that students registering for
this course have maintained at least a B average in English 10H (or an A average in English 10). The course is designed to prepare students to effectively and efficiently analyze literature at an advanced level while strengthening analytical research and writing skills. Students can expect a rigorous reading requirement of both fiction and nonfiction and they will be expected to demonstrate strong literacy and analytical skills at an independent level both through written and verbal communication. In preparation for advanced courses, the class includes substantial student led discussions focusing on analysis, synthesis, and evaluation of works. Additional components of English 11 Honors include Independent Reading, Vocabulary and Grammar, Reading Workshop, Writing Workshop, Speaking and Listening, and Research. Please note that summer reading assignments are required upon entrance to the course, and will be used to gauge the level and needs of incoming students.

**AP® English Language and Composition: Grades 11-12 – 1 credit (021)**

AP® English Language and Composition, an academically focused and intensely demanding course, is recommended to any motivated student planning to continue education after high school who is willing to accept the challenge of a rigorous, college-level English curriculum. It is encouraged that students registering for this course have maintained at least a B average in English 10H (or an A average in English 10). Students will be required to read and analyze several texts over the summer, with culminating papers/projects due the first day of the school year in August, regardless of students’ schedules. Throughout the semester, students will closely read and analyze a variety of literary works, predominantly nonfiction, in order to strengthen their own writing skills, their awareness of rhetoric and the effective crafting of language. Students will be expected to apply their knowledge and skills gained from the study of prose to their own writings. The anticipated result is to enable students to write effectively and confidently in their college courses across the curriculum and in their professional and personal lives.

**English 12: Grade 12 – 1 credit (030)**

The English 12 course is designed according to Common Core State Standards with a focus on media literacy. Students will examine the strategies used to communicate ideas in various media as well as how an audience or reader interprets those ideas. Specifically, students will explore a government’s efforts to manipulate its citizens in George Orwell’s 1984. Students will also analyze contemporary media for use of bias and rhetoric and be able to utilize these devices in their own work. The course includes a comparative analysis of classic literature through text and film interpretations as well as a term paper in which students evaluate a selected social issue as it is presented in various media.

**AP® English Literature and Composition: Grades 11-12 – 1 credit (031)**

The Advanced Placement course provides a prospect for seniors to pursue and receive credit for college-level work completed at the secondary level. This course is designed to meet the curricular requirements described in the AP® English Course Description. Motivated students will participate in a rigorous college-level course. Students will have multiple opportunities for demanding reading, intensive writing and analysis at a beginning college level. Application of these skills will be demonstrated in student writing and frequent sessions of literary discourse. Students must submit all summer reading assignments the first day of school (August) regardless of the students’ schedule. Although there is no prerequisite for this course, it is strongly recommended that students have successfully completed AP® English Language and Composition or English 11 Honors in their junior year with at least a B average or an A average in English 11.
English Electives

Holocaust Literature: Grades 11-12 – 0.5 credit (024)
Students in Grade 10 may request this course with a counselor’s recommendation
Students interested in this half-credit course will explore the facts of the Holocaust and World War II as well as make individual connections with those characters, authentic and fictional, who lived and died during the Holocaust. Such studies may include examining the voices of victim, accounts of resistance, stories of survivors in biographies and memoirs as well as aftermath reflection through fiction, drama, and poetry that honor the victims and survivors of the Holocaust.

Creative Writing: Grades 10-12 – 0.5 credit (038)
Do you enjoy writing? Students will explore a wide variety of writing from poetry to prose to essays. We will study professional pieces to help expand and develop our styles and techniques. Students will have the opportunity to develop independent works as well as participate in activities that develop creativity and writing skills.

Journalism I: Grades 10-12 – 1 credit (015)
In Journalism, students learn to write news, features, editorials, and sports stories and to edit, revise, and proofread. This hands-on course gives students an opportunity to put skills into practice by publishing for district and outside publications. The course also explores the history and role of media in society, the power and responsibility of the press, and careers in the field.

Journalism II: Grades 11-12 – 1 credit (019)
Upon successful completion of Journalism I and recommendation of the teacher, students may take a second year of Journalism. Emphasis will be placed on refining interviewing, writing, editing, layout, photo-journalism skills. The course further investigates the role of and careers within the broad fields of communications. Journalism II students are expected to write for outside publications. Prerequisite: Successful completion (B-average or higher) of Journalism I.

Journalism III: Grades 11-12 – 1 credit (020)
Upon successful completion of Journalism II and teacher recommendation, students interested in pursuing a career in Communications, Education, English, Journalism, or Professional Writing may wish to enroll in a third year of Journalism. Students focus on self-editing skills and mentor Journalism I students. Journalism III students will study current global issues in the media, autonomously complete intensive writing projects, write for outside publications, and explore appropriate writing-oriented careers. Recommendation: Successful completion (B-average or higher) of Journalism II.

Yearbook I: Grades 11-12 – 1 credit (040)
This course will deal with learning elements of yearbook production including theme development & continuity, layout and design, writing and proofing, and basic photography. In addition, students will learn to recognize and participate in the business aspects of yearbook production such as meeting deadlines, selling advertising and patrons, increasing yearbook sales, et al. The outcome of this course will be to develop, assemble, and publish The Vallian for the current school year.
Yearbook II: Grades 11-12 – 1 credit (041)
Upon successful completion of Yearbook I, students will take Yearbook II. In addition to what students have learned in Yearbook I, emphasis will be placed on refining layout and design and writing skills as well as taking a more involved role with yearbook organization through taking charge of a specific section.

SAT® Preparatory Reading/Writing: 0.5 credit (042)
This SAT® Prep course is designed to prepare students for the Reading and Writing sections. The Reading section will focus on critical thinking, sentence completion and verbal skills. The Writing section will focus on effective writing strategies which will assist students in the essay writing process. Also the Writing section will include grammar corrections in sentences and paragraphs. Students will have opportunities to take practice exams and gain valuable test-taking strategies.
Family and Consumer Sciences

Family and Consumer Science courses are designed to prepare students for life and work. Areas of focus include food, nutrition, and child development. The preschool lab—located in an FCS classroom—operates as a functioning preschool for the local community. The event planning course serves as a capstone course where students can apply what they learned in various culinary classes as well as cross-curricular topics from areas such as visual arts and business. Materials fees may be assessed in culinary classes.

Parenthood and the Developing Child: Grades 9-12 – 0.5 credit (673)
Experiences in this course will assist students in developing an understanding of the parenting process and of parenting skills. This half semester course examines child development from birth through the age of three. Students will learn about child growth and development, various family structures, and promoting the health and safety of children. The effects of teen pregnancy will be examined. Students will use baby simulators over a weekend to experience the time, energy, and patience required to have a baby. We will examine the psychological and sociological effects of adding a baby to the family unit. Child development is examined physically, intellectually, emotionally, and socially.

Child Care Today: Grades 9-12 – 0.5 credit (671)
This course will prepare students to teach in the Preschool Lab. Caregiving for children is a viable skill in the 21st century. This half semester course will focus on how being a caregiver plays an important role in a child’s development. Students will learn the characteristics and responsibilities of a good caregiver and the skills needed to find work with children. They will explore career opportunities, design developmentally appropriate activities, and integrate the knowledge, skills, and practices needed to assist in running the on-site preschool/lab program if they chose to continue with the next course: Introduction to Preschool Lab.

Intro to Preschool Lab: Grades 10-12 – 1 credit (674)
Prerequisite: Child Care Today
Students will explore child development during the toddler years. Through direct interaction, students will operate a preschool lab two times a week under the supervision of the teacher. The preschool lab is for children 2½ to 3½ years of age. The areas of physical, intellectual, emotional, and social development will be studied. Theory and instruction, preparing instructional materials, and hands-on experience with children are a major part of this course.

Advanced Preschool Lab: Grades 11-12 – 1 credit (675)
Prerequisite: Intro to Preschool Lab and teacher recommendation
Students will explore child development during the preschool years. Through direct interaction, students will operate a preschool lab three times a week under the supervision of the teacher. The preschool lab is for children 4 to 5 years of age. The areas of physical, intellectual, emotional, and social development will be studied. Theory and instruction, preparing instructional materials, and hands-on experiences with children are a major part of this course.

Preschool Lab Advisor: Grade 12 – 1 credit (676)
Prerequisite: Advanced Preschool Lab and teacher recommendation
This course is a continuation of the Preschool Lab program and for students who are seriously considering the field of education, social work, child care, and related fields dealing with children. Students will be
expected to work independently completing a more in-depth analysis to enhance the students’ ability to work with children while still working in the preschool lab. The students have the opportunity to take a leadership role as an assistant to the teacher both in the classroom and lab environments. Students can choose to become an intern in the preschool lab after completing the preschool lab advisor course.

Every Day Living: Grades 9-10 – 0.5 credit (670)
You will have the opportunity to investigate topics such as: Personal Development, Fitness and Wellness, Child Development, Interior Design, Fashion and Textiles, and Money Management. The course includes a variety of activities including: discussions, labs, debates, large and small group activities, and hands on projects. It’s a great introductory course! A materials fee may be assessed for this class.

Chef’s Corner: Grades 9-12 – 1 credit (677)
Have fun cooking while expanding your knowledge and experience in the areas of Nutrition and Wellness, Kitchen Safety, Food Careers, Equipment Selection, Cooking Methods, Food Selection and Storage, and, oh yes... did we mention Food Preparation? While learning to prepare these foods you will increase your culinary skills and appreciation of great tasting foods. Be ready and willing to taste and enjoy the many foods as your skills develop. We guarantee that you will use the information presented in this class your entire life! Basic skills learned in this class will be built upon in Culinary Arts and Pastries and More.

Introduction to Culinary Arts: Grades 10-12 – 1 credit (678)
Prerequisite: Chef’s Corner
If you enjoyed the Chef’s Corner class and are interested in expanding your knowledge for personal use or a possible career in the food service industry, this class is for you. On a personal level, you will learn how to prepare food like a gourmet. You will learn everything from setting a gracious table and serving fancy appetizers to spectacular desserts. You will also investigate career paths and practices in the food service industry. A cultural approach to international foods and U. S. regional foods is a popular part of this class. Students become familiar with the geography, climate & culture of countries & regions and explore the foods. In Culinary Arts, students must be willing to open their minds and mouths to new foods!

Pastries and More: Grades 10-12 – 1 credit (682)
Prerequisite: Chef’s Corner
In Pastries and More, students will build upon the skills learned in Chef’s Corner and learn to make a variety of yeast breads and quick breads. Students will also practice the preparation of different types of cookies, cakes, pastries, and key culinary techniques such as meringue production. Students will practice plating eye catching desserts, and designing and decorating their own custom cakes for a special occasion. This class is recommended for students planning to pursue a degree in the culinary or pastry arts as well as culinary enthusiasts.

Event Planning: Grades 11-12 – 1 credit (684)
This course provides students with an introductory approach to event planning. Emphasis on this course will include: understanding the different types of events, understanding the planning process, budgeting and cost analysis for an event, identifying risk factors in an event proposal, how to deal with problems that might occur during the planning process, creating exciting production design elements to enhance the events’ purpose and theme, and career options and outlooks. Students will learn the step-by-step process to ensure that their event fits the needs of the audience, stays within budget, and remains on time.
Health and Physical Education

As a skills and concept-based academic curriculum, the Twin Valley Physical Education course is designed to address, enhance and promote movement forms, fitness-including exercise and training principles, team-building opportunities that incorporate personal and social skills, and also the application of game strategies as they pertain to individual, team, lifetime and outdoor activities. Wellness (709), Health (721), Physical Education 10 (710), and Physical Education 11 (711) are required courses.

Wellness: Grade 9 – 0.5 credit (709)

This program of study enables students to analyze the relationships between diet, physical activity and disease as they are challenged to develop the skills that will allow them to assess personal habits, set nutrition and activity goals, and then implement a plan that will enable them to live a healthy lifestyle. The 9th Grade Wellness Course will utilize both the classroom and the Physical Education Center. While in the Physical Education Center, students will apply classroom-learned concepts by engaging in activities that promote safety and proper technique. This course is a prerequisite to Health (721) and all physical education elective courses.

Health: Grade 10 – 0.5 credit (721)

Prerequisite: Wellness

Building on the foundation established in the 9th grade Wellness course, this program of study supports students in making the critical health choices they will face during adolescence, and enables them to establish healthy behaviors. The program of instruction focuses on the six areas of teen health behavior identified by the U.S. Centers for Disease Control as having the greatest impact on current and future morbidity and mortality, including tobacco use, alcohol and other drug use, intentional and unintentional injuries, diet and physical activity, and sexual behaviors that result in HIV infection, STD or unwanted pregnancy. In this course aimed at helping individuals establish healthy lifestyle patterns through wise decision-making and premeditated choices, students are taught using a variety of learning strategies that actively engage the learner. Based upon the national and state Health education standards, content knowledge and skill development are balanced in an interactive, hands-on learning environment.

Physical Education 10: Grade 10 – 0.5 credit (710)

Prerequisite: Wellness

As a concept and skills-based curriculum the 10th grade physical education course is designed to address, enhance and promote a variety of movement forms so that students will meet the Pennsylvania State Standards for Physical Education. Students will also participate in a variety of team and individual activities that place an emphasis on fitness development, skill acquisition, application of strategic concepts, and teamwork.

Physical Education 11: Grade 11 – 0.5 credit (711)

Prerequisite: Wellness and Physical Education 10

The 11th grade physical education curriculum is structured so that students will meet the Pennsylvania State Standards for Physical Education. Adventure education activities will be utilized to enable students to develop the personal and social skills needed to be successful in today’s society. Lifetime physical activities will be introduced to help students transition from a physically active lifestyle within the organized education system to a physically active lifestyle as an adult.
Health and Physical Education Electives

**Exercise Science I: Grades 10-12 – 0.5 credit (708)**

**Prerequisite: Wellness**

This is an elective class that students may take in addition to their regularly scheduled physical education class. Rigorous learning objectives for this course are designed to enable students to understand and apply fitness training concepts to sport specific or healthy lifestyle goals. All students will learn how to assess and improve the measurable components of fitness. After testing individual fitness levels, this course will provide opportunities for students to participate in a daily individualized fitness plan designed by the student to achieve personally designed fitness goals. Exercise Science topics will be presented each week to provide students with a deeper understanding of why physiological changes are brought on by exercise, and how to manipulate those adaptations. Topics include how skeletal muscle works, muscle fiber types, energy systems, exercise nutrition, and performing enhancing supplements. This class may only be taken one time.

**Exercise Science II: Grades 11-12 – 0.5 credit (713)**

**Prerequisite: Exercise Science I**

This is an elective class that students may take in addition to their regularly scheduled physical education class. To qualify, students must have earned a C or better in Exercise Science I. Students have the same opportunity to design and implement an individualized fitness plan as in Exercise Science I. In addition, students will apply the knowledge and skills gained in Exercise Science I to mentor level I students and present topic presentations. This class may only be taken one time.

**45 Day Fit: Grades 10-12 – 0.5 credit (714)**

**Prerequisite: Wellness**

This is an elective class that students may take in addition to their regularly scheduled physical education class. 45 Day Fit is designed to provide the student with the knowledge, practice, and experiences to achieve and/or maintain high levels of muscular strength, muscular endurance and cardio-respiratory health. Learning objectives within this course incorporate fitness testing, goal-setting, weekly reflections and exercise journaling while integrating technology and current fitness trends. A strong emphasis is placed upon high-intensive total body workouts led by the teacher and/or multiple guest fitness instructors. Physical activities may include, but are not limited to: Aerobics, Cardio Kickboxing, Circuit Training, CrossFit WODs, Dance, DDR/Wii Fit, Hills, Martial Arts/Self-Defense, Military Boot Camps, Power Yoga, Resistance Training, TABATA, Zumba and a variety of indoor/outdoor team fitness challenges. This class may only be taken one time.

**Tactical Approach to Invasion Games: Grades 10-12 – 0.5 credit (715)**

**Prerequisite: Physical Education 10**

This is an elective class that students may take in addition to their regularly scheduled physical education class. In this advanced physical education course, students will be able to participate in traditional and non-traditional physical activities in a competitive, fun environment. Course activities will emphasize higher level game strategies and tactics as well as advanced skill development. Personal fitness gains will be achieved through participation in the physical activities. Throughout the course, game management and refereeing fundamentals will also be explored. This course may only be taken one time.
Conflict Resolution: Grades 10-12 – 0.5 credit (681)
Prerequisite: Health
During this 9-week elective course students will learn about conflict and its related terms, identify various factors that may contribute to conflict, discover their personal conflict management style, and recognize conflict in their own lives as well so as to better manage their attitudes and actions. Based upon the work of Dr. Marshall Rosenberg individuals will learn how to resolve conflicts, request without making demands, begin to hear the needs of others, and observe without judgment. The learning content will actively engage all students and be applicable to everyday life.
Mathematics

The mathematics curriculum follows the principles of College Preparatory Mathematics (CPM). CPM emphasizes the connected nature of mathematical concepts. Learning is discovery based with a focus on problem solving and collaboration. A standards-based grading system allows students to build mastery of the content and skills over time. Students interested in accelerating in mathematics may select more than one course per year, as long as the sequence is followed (see prerequisites for each course). Students should discuss any interest in accelerating with their high school counselor.

Algebra I: 1 credit (201)
This course covers the basic content and skills of a traditional Algebra I course. The course focuses on development of the following strands: operations with real numbers and expressions, proportional reasoning, writing, graphing, and analyzing linear equations, linear inequalities, quadratic equations, and quadratic inequalities, analyzing and operating with functions, and data analysis. Emphasis is placed on understanding and making connections between these strands and communicating mathematical concepts in various ways including algebraic expressions, diagrams, and written explanations.

Geometry Honors: 1 credit (203)
Prerequisite: Algebra I
This course is recommended for students that performed at a high level in Algebra I. It is a challenging, fast paced course that covers the basic content and skills of a traditional Geometry course as well as topics in Algebra and Probability. The course focuses on development of the following strands: algebra, graphing, ratios, geometric properties, problem solving, spatial relationships, and conjecture/proof. Emphasis is placed on understanding the connections between these strands and accurately communicating mathematical concepts in a variety of ways.

Geometry: 1 credit (204)
Prerequisite: Algebra I
This course follows the successful completion of Algebra I. This course covers the basic content and skills of a traditional Geometry course. Focus is on the development of the following strands: algebra, graphing, ratios, geometric properties, problem solving, spatial relationships.

Algebra II Honors: 1 credit (205)
Prerequisite: Algebra I and Geometry; Geometry Honors recommended
This course in second year Algebra is a fast-paced, rigorous course intended to be a lead-in to Pre-Calculus. It contains in-depth coverage of a traditional Algebra II course with emphasis on those topics necessary for Pre-Calculus. Focus is on the development of the following strands: problem solving, algebraic modeling, functions/graphing, systems of equations/inequalities, developing and following algorithms, probability, and mathematical reasoning. All students enrolling in Algebra II Honors will be given a summer review packet. Students will be assessed on this material during the first week of class.

Algebra II: 1 credit (206)
Prerequisite: Algebra I and Geometry
This course covers all of the topics in a traditional Algebra II course. The course focuses on the development of the following strands: problem solving, algebraic modeling, functions/graphing, systems of equations/inequalities, developing and following algorithms, probability, and mathematical reasoning.
Emphasis is placed on understanding the connections between these strands and communicating mathematical concepts in a variety of ways.

**Algebra III: 1 credit (207)**

**Prerequisite: Algebra II**

While Pre-Calculus is the course that is recommended after completion of Algebra II, Algebra III is available for students that would like to bolster their algebra skills before moving on. Problem Solving, algebraic modeling, functions/graphing, and systems of equations/inequalities are concepts from Algebra II that are reviewed and further developed in Algebra III. Logarithmic and Exponential Functions are new concepts that are studied in preparation for Pre-Calculus. Algebra III is meant to serve as a bridge to Pre-Calculus for students that would like to improve their knowledge of Algebra before going forward in their studies of mathematics.

**Pre-Calculus Honors: 1 credit (211)**

**Prerequisite: Algebra II; Algebra II Honors recommended**

This fast-paced, rigorous course covers both Trigonometry and Pre-Calculus topics and is intended to prepare students for Calculus. Topics covered include limits, vectors, logarithmic and exponential functions, sinusoidal functions, the unit circle, and area under the curve.

**Pre-Calculus: 1 credit (212)**

**Prerequisite: Geometry and Algebra II OR both Algebra II and Algebra III.**

This course covers both Trigonometry and Pre-Calculus topics and is intended to prepare students for Calculus. Topics covered include logarithmic and exponential functions, the unit circle, and area under the curve.

**Calculus: 1 credit (214)**

**Prerequisite: Pre-Calculus.**

This course includes the study of optimization, limits, differential equations, exponential functions, the relationship between distance and velocity, piecewise functions, and the Fundamental Theorem of Calculus. Students will learn about derivations and integrals simultaneously both geometrically and in context.

**AP® Calculus AB: 1 credit (213)**

**Prerequisite: Pre-Calculus; Pre-Calculus Honors recommended**

This intensive, fast-paced course includes the study of elementary functions, limits and continuity, and differentiation and integration of polynomial, trigonometric, and transcendental functions. It prepares students to take the AP® Calculus AB Exam and is comparable to a one semester course in college calculus. Students that were not previously enrolled in Honors Pre-Calculus must see the teacher about completing the necessary prerequisite skills not covered in Pre-Calculus.

**AP® Calculus BC: 1 credit (217)**

**Prerequisite: AP® Calculus AB.**

This intensive, fast-paced course is intended for students that were successful in AP® Calculus AB that would like to further their studies in Calculus. The course includes a short review of topics covered in Calculus AB comprising a study of elementary functions, limits, continuity, differentiation and integration, and applications of derivatives and integrals. New topics include differential equations, parametric, vector
and polar functions, sequences, and series. The course prepares students to take the AP® Calculus BC Exam and is comparable to a one semester course in college calculus.

Statistics: 1 credit (215)
Prerequisite: Algebra II or Pre-Calculus.
In this course, students will learn unbiased methods of data collection. Using these methods, we will collect data and make use of technology in order to analyze the data. Also covered in this course are probability and statistical inference.

AP® Statistics: 1 credit (216)
Prerequisite: Algebra II OR Pre-Calculus; Honors recommended
This rigorous course is designed to prepare students for the AP® Statistics Exam for which they may receive college credit. Students will collect and analyze sample data, and make inferences about a population from the data. We will also study the laws of probability. There will be a strong emphasis on the use of technology in data analysis.

Financial Literacy: 1 credit (208)
Prerequisite: Algebra II
This course is designed to help students develop competencies in mathematics for personal and business use. Students will apply the math skills they have acquired in previous courses to real-life problem solving such as completing tax forms, analyzing stocks and retirement plans, building a budget and managing bank accounts, and making informed fiscal decisions. Please note that this course may not fulfill high school mathematics requirements for some colleges.
Music

The music program in the high school offers numerous opportunities for the development of each student’s musical and creative abilities. The performing groups offer the student an experience that he/she seldom encounters in adult life. Through study and performance a student can learn to appreciate and enjoy music more. Any combination of Chorus, Band, Orchestra, Jazz Band, and Marching Band will equal 1 full credit.

Senior Chorus: Grades 9-12 – (551)
This course is designed for students in senior high school who desire to continue developing their vocal ability through the performance of various styles of music. Members of Senior Chorus may also audition for Select Chorus. Students enrolling in Chorus will be auditioned for voice placement. Chorus members will perform several required concerts during the school year, and may be required to take lessons during the school day. Any student selecting this class for the second, third, or fourth year must have successfully completed the previous year.

Senior Band: Grades 9-12 – (561)
The Senior High School Band is the core of the high school woodwind, brass and percussion program. Incorporated into the band are several performing groups; a marching unit that consists of approximately 85 playing members plus a band front of approximately 10 members; a concert band, and several smaller groups such as combos and ensembles. Marching Band is no longer a required part of this class, although members are highly encouraged to participate. Members of the band not only learn to develop playing skill and marching precision but also develop a better understanding and appreciation of music in general. Those who select this course must have adequate playing ability on their instrument. Interested students should contact the high school band director. Students will perform several required concerts each year, and are required to take lessons during the school day. Any student selecting this class for the second, third or fourth year must have successfully completed the previous year.

Marching Band: Grades 9-12 – (560)
Students enrolled in Sr. Band have the option of also enrolling in Marching Band. This group meets once every 4 day cycle during the day, for the 1st Marking Period Only. Students perform at all home football games and several evening parades in the fall and spring. The year begins with Band Camp in August, which is required for all students enrolled in the class. Some evening rehearsals may occur, especially for Percussionists.

Jazz Band: Grades 9-12 – (562)
The Jazz Band is for those students who have an interest in Jazz and popular music. The instruments used in this organization are limited to: trumpets, trombones, saxophones, piano, guitar, drum set and string bass or electric bass. The following instruments are sometimes used: baritone horn, French horn, flute, tuba and vibes. Students who play any of the above instruments may enroll in Jazz Band provided they have the required technical ability. Please speak to the high school band director before selecting this course. With the possible exception of string and keyboard players, students who select Jazz Band must also select Senior Band (561). Drummers should not elect this course unless they have had previous drum set experience. Any student selecting this class for the second, third or fourth year must have successfully completed the previous year.
Senior Orchestra: Grade 9-12 – (570)
The orchestra program at the high school is open to anyone who plays a bowed string instrument, or students who play wind, brass, or percussion instruments (by audition). Students who wish to begin playing a string instrument need prior approval from the director. Along with increasing skills on their particular instruments, orchestral players also develop a deeper appreciation and understanding for music in general. Several outside performances will be required. Any student selecting this class for the second, third or fourth year must have successfully completed the previous year. This does not apply to entry-level players.

Music History & Appreciation: Grades 9-12 – 0.5 credit (563)
Computers are used to explore the history of music, including major composers, the development of styles and forms, and specific characteristics of musical works. In addition to listening to recorded music in class, students may attend live music concerts. Students will explore as many different styles of music as possible, including classical, folk, rock, jazz, contemporary, country and western, and pop. Connections between Music, History, and Visual Art will also be discussed.

Music Theory: Grades 9-12 – 0.5 credit (564)
This course introduces the building blocks of music: scales, chords, rhythm, intervals and key signatures. Harmonic and melodic analysis of music, ear training and sight singing, and composition are also studied. Keyboards and computers are used for basic drill and to develop skills leading to four-part music writing. Much of the work during this class is done independently. Prior music reading skills strongly recommended.

AP® Music Theory: Grades 10-12 – 1 credit (566)
Advanced Placement Music Theory is a rigorous course designed to expand and enhance the basic skills of the serious high school musician and the content learned in Music Theory I. Music composition, melodic practices, theory of harmony, aural activities (sight singing) and other musical concepts are studied, encompassing the common practice period up through the Baroque/Classical period (1600-1750). Music from other stylistic periods are also analyzed and discussed. The study, writing, singing and analysis of the 4-part chorale from this common practice period is the common thread to the course study. Students are prepared to take the AP® Music Theory Exam when they have completed the course.

Music Keyboard Lab: Grades 9-12 – 0.5 credit (565)
Music Keyboard Lab is for students who have an interest in learning to read music, compose music, and perform music on the piano keyboard while incorporating the use of a computer. Students will use notation and sequencing software to learn basic note reading and how to compose and perform different styles of music. Students may take this course more than once.

Beginning Guitar: Grades 9-12 – 0.5 credit (567)
This is an elective course for beginning guitarists with little or no experience on the instrument. Students will learn open chords, power chords, movable chords, single note (melody) playing, accompaniment techniques, and a variety of playing techniques and styles, including both pick-style and finger-style approaches to the guitar. The course also includes music fundamentals, theory, songs, performances, listening, improvising, and learning to read standard music notation as well as tablature. Students may
take this course more than once if the instructor feels that more preparation is necessary to take the next level course. Students may not take this course after taking Intermediate Guitar.

**Intermediate Guitar: Grades 10-12 – 0.5 credit (568)**

**Prerequisite: Beginning Guitar Class or teacher recommendation**
This is an elective course for intermediate to advanced guitarists. Students will expand upon playing techniques learned in Beginning Guitar Class. The second-level course will more heavily emphasize music fundamentals, theory, songs, solo performances, group performances, listening, and improvisation. Continued reading of standard music notation and tablature will be included as well. Students must have previously taken Beginning Guitar Class OR receive approval from instructor.

**Music Recording & Technology: Grades 10-12 – 0.5 credit (569)**
This course is designed so that the student will develop musical listening and descriptive skills; understand and implement basic musical concepts; explore and understand the history of music technology and its development; understand the basic workings of computer hardware and operating systems; explore the basic properties of sound and MIDI technology; create, mix and edit a multi-track recording; create multi-media presentations incorporating animation, audio, and video; and mix and record podcasts and musical compositions using notation software such as Finale. There is no prerequisite for this class. Some musical experience would be preferred, but it is not required.
Science

Science and technology are the most rapidly advancing fields of study in the twenty-first century. Three core courses must be taken in sequence: Freshman Physics, Chemistry, and Biology. Students interested in accelerating in science may select more than one course per year as long as the sequence is followed and the appropriate mathematical reasoning skills have been developed (see math Recommendations for each course). Exploration of these basic sciences will provide all students with a strong foundation for the study of elective sciences designed to deepen the student’s understanding of one of the four major science disciplines, or, in an interdisciplinary science, build connections among the sciences within the core sequence, or, use their foundational science background in applied courses such as PLTW. Computers, graphing calculators, and other technology are integrated for data gathering and analysis. The fourth credit of science may be chosen from science, agricultural science, or PLTW.

Physics Honors: Grade 9 – 1 credit (301)
The foundation of science is observation, measurement and analysis. This course emphasizes these skills in the study of motion, forces, energy, momentum, projectiles, and electric circuits. Students are led to develop their ability to think about and describe these aspects of the physical world. Laboratory activities and other classroom experiences provide opportunities for students to observe, measure, analyze results, and predict events. Graphing and the mathematics of algebra are routinely used to analyze data and solve real world problems. Students need to have strong math skills and be academically motivated.

Physics: Grade 9 – 1 credit (302)
Welcome to the world of physics! Freshman Physics is the first science course for all students at Twin Valley High School. Because physics concepts are easily observable and measurable with simple apparatus, students will have the opportunity to gain direct experience in the scientific process as they discover some of the laws of physics. An understanding of physics provides the basis for understanding chemical and biological processes in future courses. Course topics will include motion, Newton’s laws, energy, momentum, waves & sound, and electric circuits.

Chemistry Honors: Grade 10 – 1 credit (311)
Honors courses are fast-paced and challenging. Honors chemistry includes all the content of Chemistry but at a deeper level, requiring more initiative and independent work on the part of the student. Chemistry topics will be examined conceptually and analytically with a strong concentration on mathematical problem solving. Application of understanding to additional related topics will further develop critical thinking skills.

Chemistry: Grade 10 – 1 credit (312)
This is an introductory, inquiry based course designed to provide the student with a good foundation in chemistry for future study in the biological, environmental, and medical sciences as well as chemical technology and other related fields. Beginning with a macro perspective of the particulate nature and states of matter, the development of the model of the atom and the relationship of the periodic properties of the elements to modern atomic theory will be studied. Included in these studies are a treatment of gas laws, chemical reactions, formulas and equations, chemical bonding, molecular structure, intermolecular forces, and acids and bases. In the laboratory, students will learn to design and perform experiments in a safe and efficient manner and maintain a lab notebook. Oral and written communication skills will be emphasized.
AP® Biology I & II: Grades 10-11 – 2 credits (341, 342)

Prerequisites: Physics and Chemistry; honors recommended.

AP® Biology is the honors level 11th grade science course. Motivated students will experience the challenge of a college-level biology course while developing the study and time management skills necessary to become confident, independent learners. At the end of this full year course, students will have completed the four credit science requirement leaving the senior year open for additional advanced science classes or electives in another field of interest.

AP® Biology is strongly recommended for any student intending to pursue a science major in college or a medical-related career. Units are determined by the College Board® and include molecules and cells, genetics, biotechnology, evolution, populations, plant and animal (human) physiology, and ecology. Twelve required quantitative labs will be supplemented with many additional lab experiences including dissection. Students will be expected to read and organize textbook material on their own so that the class period can be devoted to concept clarification, activities and laboratory experience. Written expression will be emphasized in essays and lab reports in preparation for the AP® exam in May. A score of 3 or above on the AP® exam may result in earning up to eight college credits. **PA Keystone for Biology will be given at the completion of AP® Biology II.**

**Biology Honors: Grade 11 – 1 credit (347)**

The Honors Biology course is designed as an accelerated one semester science course covering Keystone Biology content and additional topics. Students will explore the role of DNA in controlling cell function, reproduction, differentiation, heredity, and evolution. Students will be required to complete additional assignments outside of the classroom in order to devote more class time to in depth quantitative analysis of lab experiences, case studies, and topic specific classroom discussions. Students should be academically motivated and expect to schedule several hours per week for out of class work. Proficiency in Algebra I skills are strongly suggested. Students should expect a minimum of one formal lab report or formal presentation per unit. **PA Keystone for Biology will be given at the completion of this course.**

**Biology: Grade 11 – 1 credit (343)**

A study of the interactions of organisms with their environment fosters the development of environmental stewardship. Through laboratory experiences and use of multiple models, students will investigate cells as the basic unit of living things, including the biochemistry of cell structure and function. Students will also explore the role of DNA in controlling cell function, reproduction, differentiation, heredity, and evolution. Academic biology incorporates and builds upon the concepts learned in previous science courses (physics and chemistry). Lab experiences include field experimentation, modeling molecular reactions, digital microscopy and DNA fingerprinting. **PA Keystone for Biology will be given at the completion of this course.**

Science Electives

**Chemistry II: Grades 10-12 – 1 credit (313)**

Prerequisite: Chemistry

This course serves as a second semester of chemistry for students who want to explore additional topics in chemistry as well as first-year topics in more depth. Through scientific inquiry, students will develop an appreciation for the central role of chemistry in current biochemical, environmental and industrial issues. Units of study include, but are not limited to, quantifying and communicating molecular changes, factors
affecting chemical reactions, organic chemistry, and applications of chemistry to real life issues. This course would benefit any student who wants additional preparation for college chemistry and a better understanding of chemistry in the everyday world.

**AP® Chemistry I & II: 2 credits (314, 315)**

**Recommendation:** Successful completion of Algebra II; may be taken concurrently with Biology

AP® Chemistry is designed for motivated students interested in the challenge of a first year college general chemistry course. The course integrates conceptual understanding with significant quantitative analysis. Students will deepen their understanding of chemical phenomena and improve their ability to think and solve chemical problems. In accordance with the College Board® syllabus, topics include atomic theory, atomic structure, chemical bonding, molecular models, nuclear chemistry, kinetic-molecular theory, liquids and solids, solutions, reaction types, stoichiometry, equilibrium, kinetics, thermodynamics, descriptive chemistry, electrochemistry and organic chemistry. Emphasis will be placed on development of laboratory skills, and oral and written communication of experimental results. Due to the extensive amount of material to be covered, students will be expected to keep up to date on all assignments and come to class well prepared. This course is strongly recommended for students pursuing a science or medical-related degree in college.

**AP® Physics C – Mechanics: Grade 12 – 1 credit (331)**

**Requirement:** Concurrent enrollment or completion of Calculus (AP preferred)

AP® Physics C: Mechanics is equivalent to a one-semester, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton’s laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course. This course includes a hands-on laboratory component comparable to a semester-long introductory college-level physics laboratory. Students will spend a minimum of 20 percent of instructional time engaged in hands-on laboratory work. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting. Each student will complete a portfolio of lab reports.

**AP® Physics C – Electricity & Magnetism: Grade 12 – 1 credit (332)**

**Requirement:** Completion of AP Physics C – Mechanics and Calculus (AP preferred)

AP® Physics C: Electricity and Magnetism is a one-semester, calculus-based, college-level physics course following Physics C: Mechanics, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course. This course includes a hands-on laboratory component comparable to a semester-long introductory college-level physics laboratory. Students will spend a minimum of 20 percent of instructional time engaged in hands-on laboratory work. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting. Each student will complete a portfolio of lab reports.

**Maker Physics: Grades 11-12 – 1 credit (333)**

**Prerequisite:** Physics 9 or Honors Physics
The physics in this course is centered on in-class projects. Students will make their own website to document their work in class. Students will launch a high-altitude balloon into low space, turn their smartphone into a pedometer, make a simple dc motor and audio speaker, make a hologram and stereoscope, make an AM radio receiver, and study Einstein’s relativity theory. This course emphasizes the concepts in physics more than problem-solving. The math used in this course is limited to algebra.

**Human Anatomy and Physiology Honors: Grade 11-12 – 1 credit (344)**

**Prerequisite: Biology or one semester of AP® Biology**

Anatomy and physiology is a study of the relationship between body structures and their functions. Students who are interested in health or medicine and in learning how body systems function will benefit from this challenging course. The course is strongly recommended as an essential introduction and foundation for any student considering health-related or physical education related careers. An emphasis on hands-on learning using models and activities helps students develop an in-depth understanding of the skin, skeletal, muscular, nervous, cardiovascular, respiratory, digestive, urinary and reproductive systems. Lab experiences may include dissections, muscle sculpting, ECG analysis, blood pressure monitoring, an investigation of animal metabolism, and simulated blood-typing and urinalysis.

**Introduction to Astronomy: Grades 11-12 – 1 credit (345)**

Astronomy is the oldest of the natural sciences, deeply rooted in the history of almost every society. People have always stared at the sky in wonder at how the universe works; they have used their observations for timekeeping, marking the seasons, and navigation. Modern astronomy continues to explore the origin of stars, planets, and life itself. Continually advancing technology reveals a universe that is vast, varied, and beautiful, and promotes curiosity, imagination, and a sense of shared exploration and discovery. Our exploration of astronomy will include topics such as the earth and moon, the solar system, stars, galaxies, origins of the universe, and tools of astronomers. Come develop your understanding and enjoy a lifelong interest.

**Introduction to Forensic Science: Grade 12 – 1 credit (346)**

**Prerequisite: Completion of Physics, Chemistry, Biology**

Forensic Science is the application of science knowledge and technology for the enforcement of laws. Because forensics is an integrated science requiring background knowledge in earth science, physics, chemistry, and biology, the course is open to seniors who have completed these required courses. Students will further develop their laboratory and analytical skills by investigating case studies involving toxicology, entomology, physiology, pathology, ballistics, accident reconstruction, geology and the instrumental analysis of hair, fiber and DNA.
Agricultural Science and Technology

Agriculture is the number one industry in both Pennsylvania and the United States, employing over 20 percent of the U.S. workforce. Today's agriculture is science and technology oriented. Diverse areas of agriculture include food science, horticulture, forestry and natural resources, agribusiness, aquaculture, and animal and plant science. Most courses will revolve around hands-on experiences. FFA membership is a mandatory aspect of all courses in the agriculture science department and requires a yearly $15.00 fee from each student. Students may schedule more than one course. Any agriculture science courses can be used as a science elective.

CASE - Agriculture, Food & Natural Resources (AFNR): Grades 9-10 – 1 credit (651)
This course will follow the National Curriculum for Agriculture Science Education (CASE). Students will explore how mankind has developed agriculture through history as a means to meet basic human needs (food, clothing, shelter) and how we currently seek to improve human life and provide for growing population through agricultural advancement. A student-centered, hands-on laboratory approach will develop students’ understanding of the science of agriculture including soil science, water quality, cells, animal and plant science, and classification of species. Students will also gain skills in communication and public speaking. In this foundational agricultural science course, an introduction to record keeping on the online site AET will be taught and students will be assessed on an independent Supervised Agriculture Experience (SAE) project for the semester. This is the foundational course to other courses in the Agriculture Science department.

CASE - Principles of Plant Science (ASP): Grades 10-12 – 1 credit (663)
Prerequisite: CASE - AFNR or has taken or is currently taking Biology
This course teaches students the form and function of plant systems. Students experience various plant science concepts through inquiry-based exercises filled with activities, projects, and problems utilizing laboratory and practical experiences. Concepts include the study of plant anatomy & physiology, classification and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agricultural and horticultural production and will discover the value of plant production and its impact on the individual, local and global economy. Lessons will include working in teams and exploring hands-on projects. Students will be exposed to many careers related to horticulture, agronomy, plant research and more.

Greenhouse & Nursery Management: Grades 10-12 – 1 credit (664)
Prerequisite: CASE - ASP
In the second level Horticulture class, students will deepen their knowledge of the plant world. Students will develop skills necessary to be successful in a plant industry career. Students will experience individual and team projects that will focus on the skills needed to operate in a nursery and greenhouse management specialty involving skills of production, pruning, landscape design and installation and identifying and managing pest species. These lessons include working in teams and exploring hands-on projects in the greenhouse, floriculture lab or in the garden.

Aquatic Resources of Freshwater Ecosystems: Grades 10 -12 – 1 credit (668)
Prerequisite: CASE- AFNR or has taken or is currently taking Biology
In this course, students will study the science of freshwater aquatic ecosystems and the organisms found there. Students will learn about the properties of water, water systems, macroinvertebrates, aquatic species, and the production and marketing of these organisms. Students will learn the biology of various aquatic organisms, identification methods, and habitat requirements by designing and operating an aquatic system in the aquatics lab. Students will participate in the management and care of the lab and all species grown there.

Agriculture Leadership & Communications: Grade 12 – 1 credit (655)
Prerequisite: CASE - AFNR and one additional course in the department
In this course, students will embark on a journey to develop skills in working as a team or group in professional setting. Students will learn techniques on how to communicate and lead more effectively as well as hone public speaking skills and acquire parliamentary procedure knowledge. Students will work individually and in teams to complete projects and activities for the classroom, school and community. This course will help the agriculture science student to be more successful in a career and have better employability skills.

Global Agriculture & Development: Grade 12 - 1 credit (654)
Prerequisite: CASE - AFNR and one additional course in the department
In this course, students will have the opportunity to enhance their experience in agriculture by studying the various aspects of international agriculture and trade, business policies and how the world deals with issues of food distribution and a growing population. Students will help create solutions for feeding a growing world and learn how to compensate for a technology driven society. Students will work as a group to develop a community event to bring awareness to global and domestic issues.

CASE - Natural Resources & Ecology (NRE): Grades 10 -12 – 1 credit (660)
Prerequisite: Agriculture Science I or is currently taking or has taken Biology
This course will follow the National Curriculum for Agriculture Science (CASE). Students will work through multiple hands-on activities to explore the world of wildlife and the environment. Topics include: conservation, preservation, and exploitation; biomes and ecosystems; soils and agronomy; water systems and water quality; air quality, particulates, and the greenhouse effect; food webs, interdependence, and energy transfer; biodiversity, ecological succession, and carrying capacity; forestry management & dendrology; topics in environmental science; and multiple use management of wildlife areas. Students will learn to identify over 50 species of wildlife in Pennsylvania and will spend several class periods out of doors working in the school environment. Mobility to walk to the forested area is recommended.

Principles of Animal Science: Grades 10 -12 – 1 credit (652)
Prerequisite: CASE - AFNR or is currently taking or has taken Biology
Animal Science I is an introduction to the world of animal science and the animal agriculture industry. Students will be given the basics in animal care, animal behaviors, and animal handling techniques. Topics of study include animals in society, safety and sanitation, veterinary and animal science terminology, taxonomy and classification of animals, animal science careers and exploration, animal management and husbandry, and animal care and handling techniques. Students will gain hands on practical experience by caring for the agriculture department’s animals. Principles of Animal Science is a precursor to Principles of Veterinary Science. Students who complete Principles of Animal Science will have acquired the skills and training necessary for success in principles of Veterinary Science.

Principles of Veterinary Science: Grades 11 -12 – 1 credit (653)
Prerequisite: Animal Science I
In this course, students will acquire the skills and training needed for future success in the field of veterinary science as well as animal science and the animal industry. Topics of study include Sanitation and Safety, Veterinary and Animal Science Terminology, Animal Nutrition, Anatomy, Laboratory Techniques, Parasitology, Principles of Disease, and Animal Hospital Procedures and Clinical Examinations. Students will also gain hands on practical experience by caring for the agriculture department’s animals. Students who complete Principles Veterinary Science will have acquired the skills and training necessary for future success in the world of veterinary and animal science.
**Social Studies**

To be eligible for graduation, students must earn 3.5 credits in the following required courses: Foundations of American History and Government, Twentieth Century American History, Global Studies, and Political Science. Students must also earn an additional 0.5 credit in a Social Studies elective.

**United States History I Honors: Grade 9 – 1 credit (101)**
This course is a preparatory course for AP® American History. Students are required to complete summer reading assignments and analyze primary documents. Units will be presented on the establishment of the United States Constitution (the miracle in Philadelphia), the United States Government, and the history of the Republic from 1789 – 1898 from the Federalist Period, through nationalism, sectionism, expansion of the frontier, the War Between the States, Reconstruction, Industrialization and America’s emergence from isolationism to becoming a world power. Assessments will include advanced testing comprised of DBQ’s, short answers, and essays.

**United States History I: Grade 9 – 1 credit (103)**
This introductory course is designed to teach students how to study in the context of history. Units will be presented on the establishment of the United States Constitution (the miracle in Philadelphia), the United States Government, and the history of the Republic from 1789 – 1898 from the Federalist Period, through nationalism, sectionism, expansion of the frontier, the War Between the States, Reconstruction, Industrialization and America’s emergence from isolationism to becoming a world power.

**AP® US History: Grade 10 – 1 credit (122)**
This rigorous course is designed for the student with high ability and interest in the advanced study of history. Students will utilize their analytical skills and factual knowledge to deal critically with problems in the U.S. from the Colonial experience through present day history. Students will assess historical materials and their relevance to a given interpretive problem, reliability, and importance, and to weigh the evidence and interpretations presented in historical scholarship. Students also hone their skills to present reasons and evidence clearly and persuasively in essay format. The course prepares students for the Advanced Placement US History Exam, which involves fifty-five multiple choice questions, four short answer questions, one document based essay, and one long essay question. Students who score a 3 or above may be eligible for college credit. This class will require more homework time for students.

**United States History II Honors: Grade 10 - 1 Credit (121)**
This course covers the same content as the US History II course but in greater depth and complexity. The skill components of the course are accelerated and students are encouraged to develop critical thought and concentrates on the thinking, reading, writing and oral skills necessary for the college bound student.

**United States History II: Grade 10 – 1 credit (123)**
This course provides a survey of US history from 1877 to the present day. An emphasis is placed on the major social, political and economic trends that have shaped America’s role in the world. Some of the topics covered are major wars, the roaring 1920’s, Great Depression, civil rights, and terrorism.

**International Studies Honors: Grade 11 – 1 credit (132)**
This honors course begins with a study of revolutions and culminates with an analysis of modern current issues. The course has a heightened focus on research, dissecting informational texts, and the study of
primary documents. The analysis of past and present economic, geographic, and political pressures on mankind along with the development of reading, writing, and study skills are paramount in this course.

**International Studies: Grade 11 – 1 credit (133)**

People around the world welcomed the dawning of the 21st century with great enthusiasm. Warfare, famine, and general human suffering plagued the previous centuries. Although the world began a new millennium, many of the issues that mankind must grapple with today have their roots in the distant and recent past. This course will focus on how the world evolved economically, politically, and socially by analyzing the –isms of history. Students will gain an appreciation of the differences in the world and will never look at history again the same way.

**Social Studies Electives**

**Sociology: 0.5 credit (143)**

This is an introduction to the basic concepts of Sociology or the study of human social behavior with an emphasis on hands-on learning. Topics such as globalization, socialization, conflict, research, culture and social structure will be discussed. Students will participate in current events presentations, debates and researching social issues.

**Psychology: Grades 10-12 – 0.5 credit (145)**

The study of the mind, psychology tries to explain why people act, think and feel as they do. A behavioral science that concentrates on individual human behavior, psychology studies areas such as personality disorders, emotions, sensations and perceptions, learning, forgetting, personality and intelligence testing, human development and methods and experiments of psychology.

**Sports History: 0.5 credit (149)**

Following the tragedies of September 11, 2001, athletic contests from high school to the professional level were canceled en mass. In the larger scope of events, the world of sports did not seem that important, but as our nation worked through the grieving process, athletics showed their true value. Sporting events across the nation became places to honor true heroes and acted as much needed distractions. Sometimes sports are simply a backdrop to a larger historical event like 9/11 while other times they are the event itself. For example, Jackie Robinson breaking the color barrier in Major League baseball was not just a watershed event in baseball but also a major step forward in United States history. This course will use sports as a frame of reference to study United States history. It will focus on the people, places, events, and times through which athletes and coaches lived.

**History and the Media: 0.5 credit (148)**

The world of media in correlation to American popular culture is a part of our daily lives in a variety of different ways. The 20th and 21st centuries have seen a major shift in how media influences current social issues. This course is designed to analyze, discuss, and synthesize media outlets such as movies, music, literature, television, the Internet, and news to determine how the media has influenced history and is influencing current social events. This course will also explore the relationship between popular forms of media and social issues in which they originate. Students will be able to analyze gender, racial, socio-economic stereotypes seen in popular culture through a variety of entertainment outlets, as well as compare and contrast novels that have been changed or altered in order to be adapted into film. Students
will be expected to complete intensive reading assignments outside of the classroom. Assessments will be comprised of projects, essays, and differentiated presentations.

**Political Science: Grades 10-12 - 0.5 credit (144)**
The older you get, the more the government impacts your life. This course explains how the American system of government works, how it impacts your life, and how you can influence it. Topics covered include government institutions, public opinion, political parties, interest groups, elections, and voting.

**American Military History: 0.5 credit (146)**
Students interested in the American Revolution, the Civil War, World War II, and Vietnam War will enjoy this course. Each unit of study will focus on the soldiers who fought these wars, the commanders who led them, the weapons they used during them, and the strategies they employed to win them.

**Economics: Grades 10-12 – 0.5 credit (147)**
This will be an action-packed class that explores the concepts of economics in our everyday lives. Students will apply the concepts learned to different scenarios in class including projects, mysteries, and group activities. It will be a basic overview of microeconomic and macroeconomic principles as well as fiscal policy and economic theory. Students will compete using their economics knowledge with other students in the state through the Economics Challenge and the Stock Market Game.

**AP® United States Government and Politics: Grades 11-12 – 1 credit (131)**
Politics is all about—who gets, what, when and how? By analyzing the American Political System, students will gain a thorough understanding of how policy decisions are made and who benefits from them. Topics covered in this course will include Congress, the President, the Supreme Court, public opinion, political parties, elections and government spending. Preparing students for the U.S. Government and Politics AP® Exam in May is the primary focus of this course. Therefore, students taking this course should seriously consider taking this exam. Those who score well on this exam may receive college credit. Students taking this course are required to complete a summer reading assignment that will be due on the first day of the school year. AP® U.S. Government & Politics (1 credit) satisfies both the political science requirement and the social studies elective requirement.

**AP® Psychology: Grades 11-12 – 1 credit (151)**
AP® Psychology has been designed to provide students a topical study of the main elements of content in Psychology that mirrors the format of the AP® examination given in May of each year. The areas covered will include History, Methods, Biological Bases of Behavior, Sensation and Perception, Consciousness, Learning and Cognition, Motivation and Emotion, Personality, Testing and Individual Differences, Abnormal Psychology, Treatment and Social Psychology. Methods will include in-class demonstrations, labs, on-line research and hands-on examples.

**Genocide Studies: Grades 10-12 – 0.5 credit (141)**
Genocide is the deliberate and systematic extermination of a targeted group. Though the Holocaust is a well-known example of genocide, this course will focus on other genocidal events with possible topics such as those events which occurred in Armenia, Cambodia, Rwanda, Bosnia, and Darfur. Students will understand the stages of genocide, investigate the causes and impacts of genocide, and examine the actions of groups and individuals who made attempts to intervene on behalf of the victims of genocide.
Pennsylvania/Local History: Grades 10 - 12 – 0.5 credit (142)

This course traces the in-depth story of Berks County in relation to broad themes of American cultures. Local History is taught thematically in chronological order using the themes of: agriculture/business/economics, art/athletics/entertainment/recreation, military history, crime, disasters and catastrophes, religious diversity and uniqueness of Quakers/Amish/Mennonites, ethnicities and culture, geography, beginnings of Berks, and political history. Particular emphasis is placed on the people, places and material objects of Berks County in relation to the national story. Throughout the course students will learn about culture and history while applying research techniques and skills.
Technology and Engineering

Technology is the application of tools, materials, processes and systems by humans to solve problems and provide benefits to humankind. We use technology in an attempt to improve our world in which we live. Technology Education courses provide a vast choice of activities that involve both theory and practical minds-on/hands-on experiences. Focusing on the “T” and “E” of STEM (Science, Technology, Engineering and Math). Combined with cutting edge labs and equipment, instruction is related to both personal and career interest in these areas. Introductory courses require no prior experience. All students should schedule some of these courses during their high school career.

STEM Innovation Lab: Grades 9-12 – 0.5 credit (600) or 1 credit (605)
This new course is a hands-on class designed to benefit students with no prior experience and those with varying levels of prior experience. In this course students will employ all aspects of the Technology and Engineering department to design and create projects of their choice. Students will explore the design process while working through activities, projects, and problems in a self-directed, teacher supported lab environment. CAD, 3-D printing, laser engraving, CNC will be the foundation of this exploration and design course. The pace each student moves through the course will be dependent upon their previous experiences.

Materials I - Construction Technology: Grades 9-12 – 0.5 credit (601)
This course is an introductory hands-on class designed for students with no prior experience. Students are exposed to basic concepts and principles of woodworking and construction technology. Students can develop lifelong skills in the safe use of tools and machines, sketching and project planning, and woodworking while making guided and student-selected projects such as a wall shelf, laser engraved cutting board, etc. A materials fee may be assessed for this class.

Materials II - Manufacturing Technology: 1 credit (602)
Prerequisite: Materials I
This course is an intermediate hands-on class expanding upon the basic skills learned in Materials I. Students will be introduced to “modern woodworking” Digital Machining technology such as CAD/CAM, CNC and Laser applications. Through individual and cooperatively grouped project based assignments, students learn the concepts of converting raw materials into marketable goods through mass-produced products. Learning experiences include alternative materials and machine use, production techniques, design and problem-solving including fabrication of CO2 powered dragsters, industrial workforce needs, and consumer awareness. A materials fee may be assessed for this class.

Materials III – Materials and Processes: 1 credit (603)
Prerequisite: Materials II
This course is an advanced hands-on class focusing on material selection and multi-step processes to create products of value. Through comprehensive project-based assignments such as the Tool Chest project, students utilize advanced Digital Machining (CAD/CAM, CNC, Laser) joinery, machinery and tooling, hardware, finishing techniques, and an appreciation for workmanship. The study of planning and design applications will also be explored. A materials fee may be assessed for this class.

Materials IV - Product Development: 1 credit (604)
Prerequisite: Materials III
Students in Materials IV have an opportunity to fulfill advanced materials requirements through the hands-on construction of independent study projects. Appropriate to student skill and comfort level, projects are in-depth explorations that typically follow one of three categories: Imitation (following a plan), Adaptation (changing existing plan), or Innovation (student designed product). Students have an opportunity to take advantage of both advanced traditional and Digital Machining techniques to create professional quality products. A materials fee may be assessed for this class.
Energy, Power and Transportation I: (Formerly Power Tech I) Grades 9-12 – 0.5 credit (621)
Energy, Power and Transportation (EPT) is an exploratory hands-on problem solving course designed for students with no prior experience. Principles of air and water transportation are studied through the design, prototyping, and testing of water bottle rockets and air propelled boats. Principles of energy and power are studied through the construction and testing of an electronic based project. Students have the opportunity to utilize shop equipment, 3-D printers and laser engraving/cutting machines. This course is designed for all students, not only those who plan to attend technical and/or engineering programs beyond high school.

Energy, Power and Transportation II: 1 credit (622)
Prerequisite: EPT I (Formerly Power Tech I), IED, POE, CIM, STEM Lab, (or approval from Mr. Joy)
This course is a practical, project based, hands-on course. Experiences and projects include design and fabrication of a CO2 powered crash test vehicle, electronics prototyping (i.e. strobe light, amplifier, programmable LED cube), development of a printed circuit board (PCB), soldering, reading and creating technical drawings, welding fundamentals, use of fabrication equipment (metal lathe, milling machine, sheet metal machines, laser cutter/engraver, 3D printing) to create an electronics enclosure, brass hammer, and sheet metal tool tray. These experiences will help students develop specific technical, critical thinking, and problem solving skills to be prepared for future career training and all higher education disciplines.

Energy, Power and Transportation III: 1 credit (623)
Prerequisite: EPT II (or approval from Mr. Joy)
This course is a practical, project-based, hands-on course. Experiences and projects include in residential wiring, the power grid, design and construction of an Edison lamp project that will include the use of CAD, CNC machining, 3D printing, laser cutting/engraving, traditional fabrication equipment, understanding the National Electric Code (NEC), and UL listed components. In addition, students will design and construct a radio controlled robot. Learnings include, mechanical design and fabrication of a drive train incorporating electric motors, gears, pulleys, and an end effector/manipulator that includes pneumatics (air power). These experiences will help students develop specific technical, critical thinking, and problem solving skills to be prepared for future career training and all higher education disciplines.

Energy, Power and Transportation IV: 1 credit (624)
Prerequisite: EPT III (or written approval from Mr. Joy)
This course is an advanced, practical, hands-on, research and development course in which students can work in teams or individually to pursue extensive learning in an independent study format. Depending upon student skill and comfort level, electro-mechanical fabrication projects typically follow one of three categories: Imitation (following a plan), Adaptation (changing existing plan), or Innovation (student researched and designed product). Students will have an incredible opportunity to take advantage of and utilize all the cutting edge technologies within the department.

Drafting and Design I: Grades 9-12 – 0.5 credit (611)
Drafting and Design I is an introductory course designed for students with no prior drafting or computer experience. Students will develop an ability to design, produce, and understand drawings as a form of graphic communication for careers in including architecture, engineering, interior design, commercial art, computer graphics, animation and more. Drafting and Design students will utilize both CAD (computer aided drawing) and sketching techniques, design and layout software, and have an opportunity to experience both Laser Engraver and 3D printer projects such as Key Chains and Nameplates. A materials fee may be assessed for this class.

Drafting and Design II: 1 credit (612)
Prerequisite: Drafting & Design I, IED or STEM Lab
Drafting and Design II is an intermediate level course building on the basic concepts and skills developed in Drafting and Design I. Students receive special emphasis on CAD (computer aided drafting), including creating parts, assemblies, and working drawings. Students will complete several design projects incorporating but not limited to CAD, Laser Engraver, and 3D printing including a Desk Organizer.

**Drafting and Design III: 1 credit (613)**  
**Prerequisite: Drafting & Design II**  
Students in Drafting and Design III focus on two major areas of study, engineering design and computer aided drafting. The engineering design process is used to develop projects from the brainstorming/sketching stage to the prototyping stage. Some prototypes will be produced using our computerized laser cutter and our 3D printer. Engineering Design Problems such as the TSA Transportation Modeling project and the CO2 Dragster are developed. An in depth knowledge of Autodesk Inventor will be gained through the production of working drawings.

**Drafting and Design IV: 1 credit (619)**  
**Prerequisite: Drafting & Design III**  
Drafting and Design IV is an independent study course for students interested in pursuing engineering or any other mechanically oriented career. Students will pursue specific areas of interest to complete individualized projects. Students with an interest in advanced computer applications would also find this class beneficial.

**Architecture I: 1 credit (618)**  
**Prerequisite: Drafting and Design I, IED, or STEM Lab**  
This course introduces students to residential architectural design. Using architectural computer aided design software students develop personal design projects beginning with a Small Utility Building and culminating with the design of a Dream House. Through model building students will learn about construction techniques and systems. This is a blended course in which students work at their own pace and are encouraged to download the free CAD program on their personal devices to enhance their skills.

**Architecture II: 1 credit (620)**  
**Prerequisite: Architecture I or CEA**  
This course allows students to continue to pursue their interest in architectural design. Students may complete both residential and commercial projects. These advanced building designs will allow students to develop very high level computer aided drafting skills. This is a blended course in which students work at their own pace and are encouraged to download the free CAD program on their personal devices.

**Graphic Arts Fundamentals: Grades 9-12 – 0.5 credit (641)**  
Students will explore the technological aspects of printed and electronic media. This course is an introductory hands-on class designed for students with no prior experience. Students are introduced to visual communications and desktop publishing using Mac OS. Students will use the Internet, scanners, digital cameras, and large format printers to create media for print, presentations, vinyl cutting and screen process printing. A materials fee may be assessed for this class.

**Intermediate Graphic Arts: 1 credit (643)**  
**Prerequisite: Introduction to Graphic Arts (formerly Introduction to Visual Media).**  
This area of technology deals with communication through printed, televised or computerized media. Students explore the fields of Advertising, Commercial Art and Design, Photography, Graphic Design, Screen-Printing, Offset Lithography and Desktop Video Production to create artwork or solve design problems. Projects may include, but are not limited to the creation of logos, posters, ads, magazine spreads, information graphics, animations and websites. The use of Adobe Creative Suite (Photoshop, Illustrator, InDesign) and the iLife suite of products will be studied in depth. A materials fee may be assessed for this class.
Advanced Graphic Arts: 1 credit (644)
Prerequisite: Intermediate Graphic Arts or Photography
This class is intended for student directed in-depth study of visual media. The student, in conjunction with the teacher, will develop coursework and projects. This is an ideal class to explore your individual interests in visual media and to create a digital portfolio to display your talents and abilities. A materials fee may be assessed for this class.

Photography I: Grades 9-12 – 0.5 credit (642)
Photography I is an elective course open to all high school students who have an interest in exploring the field of photography. Students will explore types of cameras, camera accessories, black and white, color photography, photographic composition, techniques, genres, and how to use a green screen. Each student will construct and operate a pinhole camera, and use the darkroom to develop photographs. Students will use Adobe Photoshop to; edit photographs for lighting and color, repair damaged photographs, and prepare photos for print and digital presentation. Photography students have the opportunity to enter local and national photo contests. A materials fee may be assessed for this class.

Photography II: Grades 9-12 – 1.0 credit (645)
Prerequisite: Photography I, or Concurrently Enrolled in AP® Studio Art
This course will build on the composition skills previously learned and introduce new techniques to document or create each student’s photographic vision of the world. Students will learn how to use advanced camera settings on both film and digital cameras. Students participate in photography field trips, contests, and develop their abilities to write photo captions and narratives for print and publication. Students use WordPress to design webpages that showcase their photography and prose. A materials fee will be assessed for this class and DSLR camera a required/recommended. Class assignments may include contributions to school events and activities.
Project Lead the Way

Project Lead The Way (PLTW) is a National Engineering curriculum applying science, technology, engineering and math (STEM) to solve complex, open ended problems in a real-world context. Through an activity-, project-, and problem-based curriculum, PLTW students engage in problem solving, learn and apply the engineering design process, and use the same industry-leading technology and software as are used in the world’s top companies. Even for students who do not plan to pursue engineering after high school, the PLTW Engineering program provides opportunities to develop highly transferable skills in collaboration, communication, and critical thinking, which are relevant for any coursework or career. Any PLTW course can be used as science elective credit. Students have the opportunity to earn college credit.

Introduction to Engineering Design Honors: Grades 9-12 – 1 credit (590)
This introductory Project Lead the Way course (IED) is designed both for students with a strong interest in engineering and students who are exploring their options. No prior experience is necessary. IED emphasizes problem solving, the design process, and computer aided drafting - CAD. Students will design and produce personalized projects using the CAD system and high tech equipment like laser engravers and 3d-printers to learn the basics of engineering. Students also explore the many fields and career paths in engineering.

Computer Integrated Manufacturing Honors: Grades 9-12 – 1 credit (592)
This course (CIM) introduces students to the high-tech, innovative nature of modern automated manufacturing. Through the application of hands-on projects and activities including CAD (computer aided drawing), CAM (computer aided manufacturing), CNC (computer numerical control), Robotics, PLC (programmable logic control) and 3D printing, students will discover and explore manufacturing processes, product design, automation techniques and apply what they’ve learned to design solutions for real-world manufacturing problems.

Digital Electronics Honors: Grades 10-12 – 1 credit (593)
Prerequisite: IED
This course (DE) encompasses the learning of introductory digital electronics through hands-on, project based activities. Computer simulation of circuits, building and testing of circuits, microcontroller programming, an understanding of digital memory, and soldering are learned through creating projects such as: a stopwatch, digital clock, LED display, a four function calculator, digital dice, and Arduino programed circuits containing motors and sensors. This is course is applicable to any student who wants to better understand the digital world in which we live.

Civil Engineering and Architecture Honors: Grades 10-12 – 1 credit (594)
Prerequisite: IED
This course (CEA) provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions through hands-on projects and activities. Topics covered include the roles of civil engineers and architects, project planning, site planning, building design, project documentation and presentation. Student design projects include a utility building, a Habitat for Humanity Home, a library renovation, and a team design project such as a fire station, restaurant, sports stadium, shopping center, or other commercial or civic structure.

Principles of Engineering Honors: Grades 10 -12 – 1 credit (591)
Prerequisite: IED
Principles of Engineering (POE) is a survey course designed to help students understand the field of engineering technology. Students will develop hands-on engineering problem solving skills and explore various engineering systems. Students will learn about mechanical principles in simple machine, explore
trusses and how forces affect structures, learn about manufacturing technology through the production of a chocolate bar, learn basic programming skills through exploration of robotics as well as investigation of motion through ping pong launchers.

**Environmental Sustainability Honors: Grades 10-12 – 1 credit (596)**

**Prerequisite: IED**

Environmental Sustainability (ES) is an interdisciplinary engineering course in which students investigate and design solutions to solve real-world challenges related to clean and abundant drinking water, food supply enhancement, and renewable energy. Students will grow genetically engineered crops to resist pests, extract DNA from fruit, clone and copy DNA, develop systems to extract or remediate contaminants from soil and water, explore how contaminants infiltrate the water table, explore how water treatment facilities work and how wastewater is remediated back to drinkable water. This course has the potential to bring together a diverse group of students with interests in biology, chemistry, and/or environmental studies, and it gives students the opportunity to lead their own learning, collaborate, and gain skills needed to communicate their creative solutions.

**PLTW Capstone Course:**

**Engineering Design and Development (AP weight): Grade 12 (or approval) – 1 credit (595)**

This is an engineering research course (EDD) in which students work in teams to invent or innovate a working solution to an open-ended “real world” problem. Students will need to apply skills learned throughout their high school career and will utilize tools and equipment such as, CAD, CNC machining, 3D printing, laser cutting/engraving, microcontrollers, and use of traditional fabrication equipment. They are required to work with outside experts and will defend their solutions to a panel of local engineers and professionals at the end of the course.
**Video Production**

**Video Production I: Grades 9-12 – 0.5 credit (520)**
This course provides an overview of the skills and concepts needed to create compelling and informative video. Students become familiar with all of the basic aspects of video production in its three stages: pre-production, production and post-production. Working both individually and in groups, students will complete various projects while gaining an understanding of the Macintosh computer, digital cameras and cinematography. Students will also critique film in an effort to understand this powerful media. This course serves as the foundation for all other video courses and is an excellent introduction to media literacy.

**Video Production II: Grades 9-12 – 1 credit (521)**
Prerequisite: Fundamentals of Video Production I or Broadcast Journalism I
This course continues the study of video production. Students will continue to hone their understanding of concept creation, storyboarding, camera techniques such as pull focus, tracking and pov, and advanced editing skills using Final Cut Pro and introducing After Effects. Comprehensive analysis and study of movie clips and short film will help students in their creations. Students will work individually and in groups to create a variety of projects based on societal issues and student interests. Students must be able to work independently and outside of class.

**Video Production III: Grades 10-12 – 1 credit (522)**
Prerequisite: Video Production II
Students will create video focusing on the skills of storytelling using special effects, music, natural sound and editing techniques. Individual choice in projects will help students narrow their area of interest and develop the tools needed to get people to invest in their ideas. In depth analysis of the work of other filmmakers will help budding directors and cinematographers gain ideas and hone their craft. Students will produce pieces by working through each stage of production including; concept formation, screenwriting, casting, filming, editing, and distribution. Students must be able to work independently and outside of class.

**Video Production IV: Grades 10-12 – 1 credit (523)**
Prerequisite: Video Production III
This is the culminating course in the study of video production. Students will be asked to design their own projects and lead the production team in producing them. They will also create a portfolio of work to illustrate proficiency in the field. This is a necessary element for film school and for the job market. Students must be able to work independently and outside of class.

**Broadcast Journalism I & II: Grades 9-12 – 1 credit each (524, 525)**
These courses are both an introduction to the field of broadcasting and a production class that creates a daily live news program for Twin Valley. Part of the class will consist of analyzing the television news media including the history, ethics, style, and composition of a news program. Students will then learn hands on as they create projects to share with the student body. The second goal of the program encompasses mastering every aspect of production from working the cameras to news gathering to lighting and sound requirements. In these first two classes students will learn the basics of equipment and content creation using a host of media creation programs.
Broadcast Journalism III & IV: Grades 10-12 – 1 credit (526, 527)
Prerequisite: Broadcast Journalism II
In these upper level courses, students will build on the concepts learned in level one and two and learn how to produce and direct a news program, design a show and direct the crew. Student must demonstrate understanding of all the skills necessary for video production and studio production before they proceed. Students will also learn leadership and communication skills needed in the workplace. As a capstone project, level 4 students will create a portfolio of their work.

Film Criticism and Appreciation: Grades 10-12 – 1 credit (519)
This course will focus on developing an understanding of the language of film. Students will analyze the media and our culture by looking through that lens in terms of story design and structure, character development, shot choices and camera angles as well as the components of sound production. The focus will be on how the media in advertising, documentary and narrative film elicits an emotional response by combining the elements of pictures, dialogue and sound. This course serves as an excellent companion study for students in video production classes.

Animation and Graphic Design I: Grades 9-12 – 0.5 credit (528)
This class is designed to give you an introduction to learning how to put art in motion. Throughout the course we’ll explore the evolution of animation from flipbooks to computer generated animation. Combining techniques that are both traditional and cutting edge, the class will look at creating frame-by-frame animations that result from the study of movement, storytelling, and lighting. We will also begin to look at Photoshop and Wacom tablets as a method for combining images and/or words to create visual representations of ideas.

Animation and Graphic Design II: Grades 9-12 – 0.5 credit (531)
This class is designed to build on your experiences from Animation and Graphic Design Part I. Throughout this course we will continue to focus on bringing art to life. We will continue to utilize and expand on traditional techniques such as stop-motion, but also experiment with creating computer generated animations using programs such as Flash, Photoshop, and After Effects.
Visual Arts

Art surrounds us and can be found in every area of our lives. The art program is designed to encourage every student to appreciate art as well as lay a firm foundation for those who may plan to continue in some area of art after completing high school.

Art I: Grades 9-12 – 0.5 credit (500)
This is an introductory course that provides students with the opportunity to take an in-depth look at the foundations of art. The class is designed for the student who would like to experience many different processes rather than specializing in one area. This class will provide students with the tools to communicate their thoughts and ideas visually. Emphasis is placed on developing critical thinking skills required in art making. A materials fee may be assessed for this class.

Art II: Grades 9-12 – 0.5 credit (501)
Prerequisite: Art I
This class will allow students to use a variety of materials and techniques similar to Art I with an emphasis being placed on developing the combination of critical thinking and artistic skill required for art making. This course will still give students an opportunity to work both in two dimension and three-dimension design. A materials fee may be assessed for this class.

Art III: Grades 9-12 – 1 credit (502)
Prerequisite: Art I & Art II
In this course students refine and build on skills that they learned in Art I and Art II. Emphasis is placed on the study of techniques, media, and approaches to art. Projects address conceptual problems and emphasize the development of problem solving abilities. By sharing their thoughts, ideas, and work, students are given the opportunity to build a more thoughtful community of learners. A materials fee may be assessed for this class.

Art IV: Grades 10-12 – 1 credit (503)
Prerequisite: Art I, II, & III
In this class emphasis is placed on strengthening students' established skills from Art I and Art II. Focus is placed on developing individual artistic styles by looking at contemporary artists. Projects are in-depth explorations that give students the opportunity to apply foundational skills while furthering their artistic voices. A materials fee may be assessed for this class.

Ceramics & Sculpture I: Grades 9-12 – 0.5 credit (504)
Prerequisite: Art I; Seniors will be granted admission without Art I requirement.
Students will explore clay through construction of coil, slab, and pinch techniques. Skills and techniques are emphasized through guided practice and experimentation. Good design is approached by discussion of form, function, glaze decoration, and texture. While studio work is the focus of this course, there will be an emphasis on problem solving skills, craftsmanship, and critical analysis. A $25.00 materials fee will be assessed for this class.
Ceramics & Sculpture II: Grades 9-12 – 0.5 credit (505)
Prerequisite: Art I and Ceramics & Sculpture I
This course continues the exploration of clay fabrication techniques, with a major emphasis and focus on proper wheel throwing techniques. Good design is approached by discussion of form, function, glaze decoration, and texture. While studio work is the focus of this course, there will be an emphasis on problem solving skills, craftsmanship, and critical analysis. A $25.00 materials fee will be assessed for this class.

Ceramics & Sculpture III: Grades 9-12 – 1 credit (508)
Prerequisite: Art I and Ceramics & Sculpture II
Students will continue to explore clay through construction of hand building and wheel throwing techniques. Students will have more artistic freedoms as they improve their skills with clay, which will lead to more advanced ideas and products. Skills and techniques will be emphasized through good design. Good design is approached by discussion of form, function, glaze decoration, and texture. While studio work is the focus of this course, there will be an emphasis on problem solving skills, craftsmanship, and critical analysis. A $25.00 materials fee will be assessed for this class.

Drawing & Painting I: Grades 10-12 – 1 credit (509)
Prerequisite: Art III
Student will learn how to manipulate the art elements and principles to express their ideas through guided practice and experimentation. Student will be exposed to a wide range of drawing and painting techniques and artistic styles including but not limited to: pencil, charcoal, pastel, pen and ink, watercolor, acrylic and oil. The course will allow the opportunity to explore expressive and classical approach to both drawing (gestural, value, line, texture) and painting (still life, landscape, non-objective). Students in grades 10-12 have the option to receive up to 6 dual enrollment credits through Reading Area Community College for a fee.

AP® Studio – 2D Portfolio: Grade 12 – 1 credit (510)
Prerequisite: Art I, II, III, IV, and Drawing and Painting. Teacher recommendation suggested.
Students will be required to demonstrate mastery of 2D design through and 2D medium or process. Any work that makes use of other artists’ work (including photographs) and or published images must show substantial and significant work. A minimum of 6 hours per week outside of class is required for a fully developed piece of art work. A total of 26 fully developed concentration pieces will be required for submission and review by the AP® review board. This class is designed for the serious art student who is self-motivated and has the drive to explore a higher level of art. A materials fee may be assessed for this class.

Fiber Design: Grades 9-12 1 credit (511)
Prerequisite: Art I and Art II
This course will investigate a variety of media in the Fiber Arts. The students will learn about the possibilities of Fiber Arts including but not limited to: weaving, felting, traditional and non-traditional basketry, transferring, embroidery, natural dying, batik, and polyester and natural shibori (tie-dye). A variety of aesthetics and expressive qualities of fiber will be investigated. The objective of the class is to introduce these techniques, which will enable the students to create their own artistic vision with a variety of Fiber Arts in a Fine Arts context. A $10 materials fee will be assess for this class.
Advanced Art Extension: Grade 12 – 1 credit (512)

Prerequisite: AP® Studio – 2D Portfolio

This course is offered in an independent study format in the second semester for students who have successfully completed AP® Studio – 2D Portfolio in the first semester. Student will have the opportunity to continue to build their portfolio through this course. *Students have the option to receive dual enrollment credits through Reading Area Community College for a $300.00 fee.*
World Language

Because there is an ever-growing need for world language proficiency in the job market, students are encouraged to participate in a world language. Students who are motivated, diligent in performing their work, and determined to learn a world language can do so successfully. Although at least two years of world language study is strongly recommended for all students, it should be noted that many colleges are requiring 2-4 years of study of the same language prior to college admission.

French I: 1 credit (045)
Students learn how to speak, read, write, and understand French through storytelling and basic vocabulary. At this beginning level students will read well-known children’s stories and interpret the stories using gestures, translations, acting, videos, audio and cultural comparisons. In this class we incorporate a few technology components such as: Google Classroom, Duolingo, and Quizlet.

French II: 1 credit (046)
French II continues the goals stated in French I, with emphasis on understanding the present tense and starting to incorporate the past tense in our stories.

French III: 1 credit (047)
French III places emphasis on gaining fluency. We will focus on the past tense and continue adding vocabulary through the use of stories and short novels. Various materials such as films, cultural and historical events, and literature selections will be added.

French IV Honors: 1 credit (048)
The fourth year level continues to emphasize fluency in the target language. A wide variety of materials such as literature selections, songs, films and technology are used to improve listening, reading, writing, and speaking skills. They will continue to practice grammar that will allow them to communicate in the present, the future, and the past.

AP® French Language, and Culture: 1 credit (049)
The fourth year level continues to emphasize fluency in the target language. A wide variety of materials such as literature selections, songs, films and technology are used to improve listening, reading, writing, and speaking skills. They will continue to practice grammar that will allow them to communicate in the present, the future, and the past.

German I-A: Grades 9-12 – 0.5 credit (080)
This is an introductory course that provides students the opportunity to explore spoken German in the context of everyday life. Students learn to express themselves and to converse with one another about weather, time, free time, and school using basic vocabulary. Culture is studied through learning the customs, holidays, and daily routines of Germany, Switzerland, and Austria.

German I-B: Grade 9-12 – 0.5 credit (081)
This class provides a solid foundation in the study of German by introducing writing and reading in German at a basic level. Students are given the opportunity to continue exploring spoken German as a step toward mastering the language. The culture of Germany and other German-speaking countries is studied through projects, conversations, and role-plays.
German II: 1 credit (082)
Emphasis on this level will be placed on speaking, writing and reading German. Students will be exposed to readings about culture and daily routine in Germany and will concentrate on vocabulary acquisition. Short oral and written reports will be used to reinforce new and reviewed grammatical skills. An increase of listening activities will be introduced. If you have a minimum of a C average and an enjoyment and desire to further your language mastery, this course is highly recommended.

German III: 1 credit (083)
The course consists of dialogues concerning various aspects of daily life in Germany and longer articles including those about history, music, literature and people of Germany. Although speaking, reading, and writing are emphasized on this level, students will continue to reinforce previously learned grammatical concepts while being introduced to others. Short compositions and translations will be prepared by the students.

German IV Honors: 1 credit (084)
This fourth year level is designed for students who desire to improve and combine foreign language skills studied during the first three years of German. Listening, speaking, reading and writing will be stressed, with particular emphasis on speaking. Students will write and perform their own skits, engage in conversation, and study German culture and history.

AP® German V: 1 credit (085)
Components of AP® German V include perfecting basic conversation skills for everyday/authentic experiences, basic travel capability, circumlocution, reading small novellas, news media, comprehending broadcast media, and written ability with every day forms and business correspondence. German culture and history will be researched, discussed and presented through written assignments. Cultural study will focus on art, music and film. Historical study will focus on the 19th and 20th centuries, as well as Germany’s current and future social trends.

Spanish I-A: Grades 9-12 – 0.5 Credit (090)
This is an introductory course that provides students the opportunity to explore spoken Spanish in the context of everyday life. Students learn to express themselves and to converse with one another about weather, time, free time, and school using basic vocabulary. Culture is studied through learning the customs, holidays, and daily routines of Spain, Mexico, and other Spanish-speaking countries.

Spanish I-B: Grades 9-12 – 0.5 credit (091)
This class provides a solid foundation in the study of Spanish by introducing writing and reading in Spanish at a basic level. Students are given the opportunity to continue exploring spoken Spanish as a step toward mastering the language. The culture of Spain, Mexico, and other Spanish-speaking countries is studied through projects, conversations, and role-plays.

Spanish II: 1 credit (092)
In level II, students continue to master the foundation of the Spanish language. This course places more emphasis on the structure of the language and the development of reading and writing skills. The text, songs, films and the internet are some of the materials used to improve these skills. Cultural study expands on previous knowledge of Spain and Mexico and includes the Spanish-speaking countries in Central and South America as well as the Caribbean.
Spanish III: 1 credit (093)
The objective of this course is to build on previous levels of Spanish and to gain fluency in the language. Emphasis is placed on vocabulary enrichment and on the development of reading and writing strategies. Students are exposed to authentic literature. Various methods are used to build students’ ability for self-expression in communicating events in the past, present and the future.

Spanish IV Honors: 1 credit (094)
A wide variety of materials beyond the textbook such as authentic literature selections, newspaper articles, songs and the Internet are used to improve listening, reading and writing skills. Emphasis is also placed upon oral fluency. Interviewing and storytelling activities are used to help students acquire and improve speaking skills. Discussion of contemporary issues and current events is encouraged in the target language. Students will continue to practice grammar that allows them to communicate events in the present, future and the past as well as delivering commands and understanding the subjunctive mood.

AP® Spanish, Language, and Culture: 1 credit (095)
An AP® Spanish Language course is designed to be comparable to a third year level college Spanish language course. It emphasizes the use of Spanish for active communication, aural/oral skills, reading comprehension, grammar, and composition. The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines. It will also include extensive training in the organization and writing of compositions. This course is taught entirely in Spanish and reflects the guidelines outlined in the College Board’s AP® Spanish course description.

Spanish Literature Honors: 1 credit (096)
Spanish Literature is an advanced course designed to be the final step of preparation for advanced Spanish study at the university level. Students read, analyze, discuss, compare, and write extensively on literature selections. This course also maintains fluency and hones the skills of listening, speaking, reading, and writing. The literature prompts the refinement of vocabulary and grammar structures. Students enrolled in this course have acquired an advanced understanding of structures with general proficiency. This course is taught entirely in Spanish.
Berks Career & Technology Center

All technical center electives are worth three (3) credits. Students choose one (1) area of specialization. Students enrolled in BCTC will be waived 0.5 PE credits and 1.0 Science credit.

Advertising Art & Design Technology (903)
Automotive Collision Repair Technology (901)
Automotive Technology (904)
Building Construction Occupations (907)
Cabinetmaking (910)
Carpentry (913)
Communication Media Technology (917)
Cosmetology (931)
Culinary Arts (932)
Dental Occupations (937)
Diesel Technology (940)
Drafting Design Technology (943)
Early Childhood Education (970)
Electrical Occupations (946)
Electronic Engineering Technology (949)
Graphic Imaging Technology (920)
Healthcare Information Technology (923)
Health Occupations (952)
Health Related Technology (955)

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Heating, Ventilation, Air Conditioning Refrigeration (HVAC) (957)
Heavy Equipment Technology (959)
Horticulture (961)
IT Networking (926)
IT Programming (928)
Masonry (967)
Mechatronics Engineering Technology (968)
Medical Health Professions (951) – Seniors Only
Painting and Decorating (973)
Photo Imaging Technology (919)
Plumbing and Heating (976)
Precision/Computerized Machining Tech (964)
Protective Services (983)
Recreational & Power Equip. Tech. (985)
Robotics and Automation Technology (988)
Service Occupations (989)
Technology Based Entrepreneurship (992)
Welding Technology (990)
Technical College High School

All technical center electives are worth three (3) credits. Students choose one (1) area of specialization. Students enrolled in TCHS will be waived 0.5 PE credits and 1.0 Science credit.

Allied Health Science Technology (816)
Animal Science (813)
Automotive Collision Technology (814)
Automotive Service Technology (815)
Baking & Pastry Arts (829)
Barbering (810)
Carpentry (820)
Commercial & Graphic Arts (822)
Computer Information Systems (824)
Cosmetology (826)
Criminal Justice & Police Sciences (827)

Culinary Arts (828)
Early Childhood Care & Education (830)
Electrical & Mechanical Systems (832)
Engine Technology (836)
Health Career Pathways (840)
HVAC & Refrigeration Technology (842)
Marketing & Financial Services (818)
Robotics & Mechatronics (833)
Teacher Leadership Academy (831)
Veterinary Science (812)
Career Pathways

Preparing students to enter both post-secondary education and the work force is an important goal of the Twin Valley School District. With new technologies, emerging markets and constant changes in the work place, today’s students must be prepared for both a career field and a lifetime of learning. Career pathways were created to support students in planning properly throughout the high school years when choosing elective courses. These are meant to be a guide. Students are not locked in to any career pathway but may choose elective courses from any pathway as long as prerequisites are met.

Career Clusters and Career Pathways

Course alignment charts were created to assist students in navigating the high school course offerings and how they relate to careers. There are six career clusters identified under two larger headings of STEM (Science, Technology, Engineering, and Math) and Arts & Humanities in the Twin Valley High School course offerings. Under each career cluster there are multiple career pathways with corresponding course suggestions.

How it Works

Students should prepare an academic plan centered on a career goal and discuss that goal with parents and high school counselors. Students can consult the suggested course alignment for each career area when planning and selecting courses throughout high school. Careful consideration should be given to elective courses that support the student’s career goal and areas of interest. All students are encouraged to take advantage of the internship program in either their junior or senior year to experience a more in-depth workplace environment under the supervision of a skilled mentor.

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<thead>
<tr>
<th>STEM</th>
<th>Arts and Humanities</th>
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<td><strong>Career Clusters</strong></td>
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<tr>
<td>Engineering and Industrial Technologies</td>
<td>Health and Medical Professions</td>
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<td><strong>Career Pathways</strong></td>
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<td>Engineering</td>
<td>Sports and Fitness</td>
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<td>Industrial Technology</td>
<td>Medical Professions</td>
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<td><strong>STEM Pathways</strong></td>
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<td>Natural Resources and Environmental Sciences</td>
<td>Related Professional Careers: Biology, Marine Sciences, Environmental Sciences, Agricultural Sciences, Food Sciences</td>
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<tr>
<td><strong>Arts and Humanities Pathways</strong></td>
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<tr>
<td>Community and Consumer Services</td>
<td>Related Professional Careers: Public Relations, Caseworker, Child Protective Services, Counselor, Law Enforcement, Justice Services, Lawyer, Criminal Justice Services, Sociologist, Psychologist, Psychiatrist, Clergy, Military</td>
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# Career Pathways Model

## Engineering and Industrial Technologies Career Cluster

### Related Careers:

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<th>Grade 9</th>
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<th>Grade 11</th>
<th>Grade 12</th>
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<td>Science</td>
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<td>Social Studies</td>
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<td>Wellness</td>
<td>Health</td>
<td>Physical Education</td>
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### Engineering Pathway

- Introduction to Engineering Design
- Principles of Engineering
- World Language II

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### Industrial Technology Pathway

- Drafting and Design I
- Materials I
- Power Tech I

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## Career Pathways Model

### Health and Medical Professions Career Cluster

**Related Careers:** Medicine, Physical Therapist, Dentist, Pharmacist, X-ray Tech, Nurse, Dental Hygienist, Paramedic, Occupational Therapy, Veterinarian

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<thead>
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### Medical Professions Pathway

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## Career Pathways Model

### Natural Resources and Environmental Career Cluster

**Related Careers:** Biology, Marine Sciences, Florist, Landscape Designer, Environmental Technology, Forest Technology, Agricultural Science, Naturalist

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<tr>
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#### Agriculture, Food & Natural Resources Pathway

- Agriculture, Food and Natural Resources (AFNR)
- World Language II

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#### Environmental and Earth Sciences Pathway

- Agriculture, Food and Natural Resources (AFNR)
- World Language II

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# Career Pathways Model

## Arts and Communications Career Cluster

**Related Careers:** Technical Writing, Teacher, Editor, Publication Manager, Journalist, Illustrator, Artist, Musician, Performing Arts, Photographer

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</table>

### Performing Arts Pathway

- Band, Chorus, Orchestra
- Jazz/Marching Band
- Music Theory
- Materials I
- Beginning Guitar

- Band, Chorus, Orchestra
- Jazz/Marching Band
- Music History & Appreciation
- Materials II
- Intermediate Guitar

- Band, Chorus, Orchestra
- Jazz/Marching Band
- Music Keyboard Lab
- Materials III
- Creative Writing

- Band, Chorus, Orchestra
- Jazz/Marching Band
- Music Technology
- Materials IV
- History and the Media
- AP® Music Theory
- Music Recording & Technology

### Art and Graphic Design Pathway

- Art 1
- Ceramics 1
- Animation I
- Photography
- Introduction to Visual Media
- Drafting & Design I
- Materials I
- Web Design I

- Art II
- Ceramics II
- Animation II
- Advanced Photography
- Intermediate Visual Media
- Drafting & Design II
- Architecture I
- Web Design II
- Technical Illustration I

- Art III
- Ceramics III
- Drawing and Painting
- Advanced Visual Media
- Drafting & Design III
- Architecture II
- Technical Illustration II
- Yearbook I

- Art IV
- AP® Art 2D Studio
- Ceramics
- History and the Media
- Drafting and Design IV
- Fiber Design
- Creative Writing
- Yearbook II

### Journalism and Media Pathway

- Journalism I
- Broadcast Journalism I
- Video Production I
- World Language II

- Journalism II
- Broadcast Journalism II
- Video Production II
- Sociology
- Film Criticism
- World Language III

- Journalism III
- Broadcast Journalism III
- Video Production III
- Creative Writing
- History and the Media
- Conflict Resolution

- Journalism IV
- Broadcast Journalism IV
- Video Production IV
- Holocaust Literature
- AP® U.S. Government & Politics
- Internship
- Event Planning
- Music Recording & Technology
## Career Pathways Model

**Business/Marketing/Management Career Cluster**

**Related Careers:** Accountant, Marketing, Economics, Business, Investment & Brokerage, Retail Management, Sales, Real Estate, Banking, Computer Science

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### Computer Sciences Pathway

- World Language II
- Keyboarding/MSO Apps
- World Language II
- World Language III
- Video Production
- Web Design and Development
- World Language III
- World Language IV
- AP® Calculus AB
- Computer Science I
- Internship
- PLTW Digital Electronics
- AP® Computer Science Principles
- AP® Calculus BC
- AP® Statistics
- Internship

### Finance and Accounting Pathway

- World Language II
- Personal Finance
- World Language III
- Accounting Principles
- Business Principles
- World Language IV
- AP® Calculus AB
- Advanced Accounting Economics
- Internship
- AP® Calculus BC
- AP® Statistics
- Internship

### Business and Entrepreneurship Pathway

- World Language II
- Business Management
- Web Design and Development
- World Language III
- Sports & Entertainment Marketing
- Accounting Principles
- Personal Finance
- World Language IV
- Business Principles
- AP® Calculus AB
- AP® English Language & Comp Economics
- Internship
- AP® World Language Entrepreneurship
- Event Planning
- AP® Calculus BC
- AP® Statistics
- Internship
### Career Pathways Model

#### Community and Consumer Services Career Cluster

**Related Careers:** Teacher, Public Relations, Caseworker, Child Protective Services, Military, Clergy, Psychologist, Counselor, Lawyer, Paralegal, Librarian, Law Enforcement, Travel, Culinary, Child Care, Maintenance, Firefighter, Corrections Officer, Teacher’s Aide

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#### International Relations Pathway

- World Language II
- World Language III
- World Language IV
- AP® World Language
- AP® U.S. Government & Politics
- American Military History
- Global Agriculture & Development
- Internship

#### Law and Government Pathway

- World Language II
- World Language III
- World Language IV
- AP® World Language
- AP® U.S. Government & Politics
- American Military History
- Introduction to Forensic Science
- Internship
- Genocide Studies

#### Education and Social Services Pathway

- World Language II
- Parenting and Child Development
- Every Day Living
- World Language III
- Intro to Preschool Lab
- Chef’s Corner
- World Language IV
- Advanced Preschool Lab
- Culinary Arts
- Psychology
- Sociology
- AP® English Language & Comp
- AP® World Language
- Preschool Advisor I & II
- Pastries and More
- AP® Psychology
- Conflict Resolution
- Introduction to Forensic Science
- Internship
- AP® English Literature & Comp