# PALISADES <br> <br> HIGH SCHOOL <br> <br> HIGH SCHOOL CURRICULUM GUIDE <br> <br> 2020-2021 

 <br> <br> 2020-2021}

Revised (2-10-2020)

It is the policy of the Palisades School District not to discriminate on the basis of age, color, creed, handicap, national origin, race or sex in activities and programs under its sponsorship as required by Title IX of the Education Amendments of 1972. This applies to application and selection for admission to all courses by students.

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## REQUIREMENTS FOR GRADUATION

Graduates must meet all graduation criteria described below:
$\square$ Present a portfolio which meets district standards. Students may receive up to 1.0 credit (.25/year) for successfully meeting the portfolio criteria. However, this credit cannot substitute any of the courses which constitute the 24.5 credits outlined above. Please note students do receive a grade for their portfolio and it is calculated into their class rank and GPA.
$\square \quad$ Pass courses in approved Program

| Subject | College Prep | Technical School |
| :---: | :---: | :---: |
| English | 4.0 credits | 4.0 credits |
| Math | 4.0 credits | 3.0 credits |
| Science | 4.0 credits (Biology, Chemistry, Physics are 3 required) | 3.0 credits |
| Additional math or Science | -- | 1.0 Math or Science |
| Social Studies | 4.0 credits | 4.0 credits |
| Wellness/Fitness | 1.5 credits PE . 5 credit Health | 1.0 credits PE <br> .5 credit Health |
| Financial Literacy | . 5 credit | . 5 credit |
| Electives | 6.0 credits <br> (Includes World Language, art, music, business, one additional gym, and additional academic courses above 4.0 credits) | 7.5 credits <br> (Includes technical shop, World Language, art, music, business, one additional gym, and additional academic courses above 4.0 credits) |
| Other criteria to meet graduation | - Complete a senior/graduation project according to district standards <br> - Proficiency on Keystone Algebra I, Keystone Biology, and Keystone Literature | - Complete a senior/graduation project according to district standards <br> - Proficiency on Keystone Algebra I, Keystone Biology, and Keystone Literature |

Special education students will meet the exit outcomes and graduation requirements through their Individualized Education Plans (IEPs).

## SPECIAL INFORMATION FOR COURSE SELECTION

## COURSE REGISTRATION PROCESS

During the month of January/February each student will meet with his/her counselor for the purpose of developing next year's program of study. At that time, the student and his/her counselor will utilize the following information in selecting courses for next year:

1. The student's stated career and educational plans/goals.
2. The student's academic achievement thus far.
3. Course and grouping recommendations from the curricular departments.
4. The graduation requirements and what the student needs to graduate.
5. The maximum effective use by the students of the four-period school day and of their remaining school years.

Any questions or concerns about course registration or course scheduling should be referred to the student's counselor.

## CHOOSING COURSE LEVELS

In the areas of Social Studies and English, students will select levels of courses according to the following guidelines:

Level One (1):

Reading, Math, or writing skills are at proficient or advanced level and current performance in subject area.

Level Two (2):
Reading, Math or Writing skills are below proficient level and current performance in subject area.

## Advanced Placement:

Completion of AP application with teacher recommendation
$\square$ Plans to take AP Exam
$\square \quad$ A or B in previous or designated level one or AP course in the subject area
$\square$ Demonstrated writing ability
$\square$ Completion of any required summer reading/project/writing


## COURSE FEES - SAFETY AND MATERIALS

Because of the nature of specific courses offered at Palisades High School, students will incur expenses above and beyond the basic course costs of texts, supplies, and materials. For example, students are required to purchase materials for projects made in shop/lab which become their personal property upon completion; students are expected to purchase calculators for use in science and math courses, and to pay for extraordinary expenses for advanced projects, driver training, advanced placement test fees or those associated with the preparation of a personal portfolio for art school. Any questions regarding materials costs/course fees may be directed to subject-area department heads.

## WEIGHTED COURSES - GRADE POINT AVERAGE - CLASS RANK

The Palisades School Board authorizes a system for calculating grade point average based upon credits attempted and grades received for students in grades 9 through 12. Further, the Board authorizes a system of weighted class ranking based upon credits attempted, weighted course multipliers and grades received for students in grades 9 through 12. Class rank is computed through the addition of weighted course points earned for all courses attempted in grades 9 through 12. Weighted course points are determined by multiplying the numerical value of the final grade, times the course credit, times the weighted course multiplier. In each grade the student accumulating the highest number of weighted course points is ranked number one. Weighted course points are cumulative from year to year in grades 9 through 12.

| DEPARTMENT | WEIGHT 8 | WEIGHT 7 | WEIGHT 6 | WEIGHT 5 |
| :---: | :---: | :---: | :---: | :---: |
| Art \& Engineering Design | AP Studio Art | None | Robotics I, II; Architectural Design I, II; Electrical Engineering Design | Drawing \& Painting I, II; Graphic Communications; Studio Art; 3-D Design \& Sculpture I, II, III; Intro to Engineering; Mechanical Engineering Design |
| Business Technology | AP Computer Science Principles | None | TV/Video II, III; Computer Science I; Entrepreneurship; Business Seminar; Accounting II | Accounting I; Business <br> Concepts; TV/Video I; <br> Financial Literacy; <br> Multimedia <br> Communication; <br> Marketing; MOOC |
| English | AP Language \& Communications (11); <br> AP Literature \& Composition (12) | None | English 9-1, 10-1, 11-1, 12-1; English Online 11-1, 12-1; English Blended 10; Advanced Reading Seminar; Journalism II | Creative Writing; English 9-2, 10-2, 11-2, 12-2; SAT <br> Reading/Writing Prep; SAT Reading/Writing Prep Online; Journalism I |
| Math | AP Calculus; AP <br> Statistics; AP <br> Computer Science | Advanced Algebra/Trig (H); <br> Algebra II (H); <br> Geometry (H) | Advanced Algebra/Trig.(Level 1); Algebra I, II (Level 1); <br> Geometry (Level 1); Calculus; Pre-Calculus | Algebra I, II, III (Level 2); <br> Geometry (Level 2); <br> PreAlgebra (Level 2); <br> Algebra I-A; Algebra I-B; <br> Algebra 11-2 online; <br> Algebra III; Intro to <br> Statistics; Intro to Statistics <br> Online; SAT Math Prep |
| Music | None | None | None | Jazz; PACT; Madrigals; <br> Concert Band; Concert <br> Choir; Digital Music; <br> Freshman Chorus; <br> Musical Theatre; Strings; <br> Guitar I, II |


| Science | AP Biology; AP Chemistry; AP Physics 1 | None | ```Anatomy/Physiology I/II; Biology (Level 1); Chemistry I, II; Chemistry (Blended); Physics I, II``` | Active Physics; Applied Chemistry; Biology (Level <br> 2); Earth and Space <br> Science; <br> Natural/Environmental <br> Science; Applied Physics <br> (Sports orTransportation); <br> Applied Ecological Science |
| :---: | :---: | :---: | :---: | :---: |
| Social Studies | AP US History; AP European History | None | Global Perspectives I, II (Level 1); Cultural Diversity and Conflict Resolution; Cult. Div \& Conf. Res.Online; Government \& Development of Public Policy; Gov't \& Dev. Of Pub.Policy Online; Modern World History (Level 1); US \& World II \& III (Level 1); US \& World III online (Level 1) | Sports in American <br> Society; Cultural Diversity (Level 2); Economics; Economics Online; Global Perspectives I, II (Level 2); Modern World History (Level 2); US \& World II \& III (Level 2); US \& World III Online (Level 2) |
| Special Education | None | None | Gifted Independent Study; Gifted Seminar I, II, III | Math 9-12; English 9-12 <br> Reading 9-12, Social <br> Studies 9-12, Science 9-12, <br> Study Skills |
| Wellness \& Fitness | None | None | None | Driver Education; Health; Health Online; PE I, II; Team Sports; Group Fitness; Lifetime Fitness; Aerobics; Personal Conditioning; Driver Ed. Online; PE Online |
| World Languages | AP French; AP German; AP Spanish | None | French III, IV; German III, IV; Spanish III, IV; Less Commonly Taught Languages; Global Issues Seminar | French I, II; German I, II; Spanish I, II; |
| Online/Cyber Academy | None | None | Apex courses approved through PHS | Educere courses approved through PHS |
| College | Dual enrollment taught at PHS, <br> Scholars program courses | None | None | None |
| UBCTS | None | None | Level II, Level III | Level I |

## Eligibility Center

## NCAA Division I Initial-Eligibility Requirements

## Core Courses: (16)

- Initial full-time collegiate enrollment before August 1, 2016:
a Sixteen (16) core courses are required (see chart below for subject-area requirements).
- Initial full-time collegiate enrollment on or after August 1, 2016:
© Sixteen (16) core courses are required (see chart below for subject-area requirements).
- Ten (10) core courses completed before the seventh semester; scicn (7) of the 10 must be in English, math or natural/physical science.
- These courses/grades are "locked in" at starl of the seventh semester (cannot be repeated for grade-point average [GPA] improvement to meet initial-cligibility requirements for competition).
: Students who do not meet core-course progression requirements may still be eligible to receive athlefics aid and practice in the initial year of enrollment by meeting academic redshirt requirements (see belou).


## Test Scores: (ACT/SAT)

- Students must present a corresponding test score and core-course GPA on the sliding scale (see Page No. 2).
- SAT: critical reading and math sections.
- Best subscore from each section is used to determine the SAT combined sone for initial eligibility.
- ACT: English, math, reading and science sections.
- Besl subscore from each section is used to determine the ACT sum score for initial eligibility.
- All ACF and SAT attempts before initial full-time collegiate enrollment may be used for initial eligibility.
- Enter 9999 during ACT or SAT registration to ensure the testing agency reports your score directly to the NCAA Eligibility Center. Test scores on transcripts will not be used.


## Core Grade-Point Average:

- Only core courses that appear on the high school's List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibjilitycenter,org) will be used to calculate your core-course GPA. Use this list as a guide,
- Initial full-time collegiate enrollment before August 1, 2016:
: Students must present a corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.000 ) on Sliding Scale A (see Page No. 2).
- Core-course GPA is calculated using the best 16 core courses that meet subject-area requirements.
- Initial full-time collegiate enrollment on or afier August 1, 2016:
- Students must present a corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.300) on Sliding Scale B (see Page No. 2),
- Core-course GPA is calculated using the best 16 core courses that meet both progression (10 before seventh semester, seven in English, math or science; "locked in") and subject-area requirements.


## DIVISION I

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Core-Course Requirement (16)
4 years of English
3 years of math (Algebra I or higher)
2 years of natural'physical science (1 year of lab if offered)
1 year of additional English, math or natural/physical science
2 years of social science
4 years of additional courses (any area above, foreign language or comparative religioniphilosophy)
```


## DIVISION I - 2016

Qualifier Requirements
*Athletics aid, practice, and competition

- 16 core courses
- Ten (10) core courses completed before the start of seventh semester. Seven (7) of the 10 must be in English, math or naturalíphysical science.


## - "Locked in" for core-course

 GPA calculation.- Corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.300) on Sliding Scale B (see Page No. 2).
- Graduate from high school.


## DIVISION I-2016

## Academic Redshirt Requirements

Athiefics aid and practice (no competition)

- 16 core courses
- No grades/credits "locked in" (repeated courses after the seventh semester begins may be used for initial eligibility).
- Corresponding test score (ACT sum score or SAT combined score) and care-course GPA (minimum 2.000) on Sliding Scale B (see Page No. 2).
- Graduate from high school.


## NCAA ELIGIBILITY CENTER QUICK REFERENCE GUIDE

## Division II Initial-Eligibility Requirements

## Core Courses

- Division II currently requires 16 core courses. See the chart below.
- Beginning August 1, 2018, to become a full or partial qualifier for Division II, all college-bound student-athletes must complete the 16 core-course requirement.


## Test Scores

- Division II currently requires a minimum SAT score of 820 or an ACT sum score of 68 . Beginning August 1, 2018, Division II will use a sliding scale to match test scores and core-course grade-point averages (GPA). The sliding scale for those requirements is shown on Page No. 2 of this sheet.
- The SAT score used for NCAA purposes includes only the critical reading and math sections. The writing section of the SAT is not used.
- The ACT score used for NCAA purposes is a sum of the following four sections: English, mathematics, reading and science.
- When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency. Test scores that appear on transcripls will nol be used.


## Grade-Point Average

- Be sure to look at your high school's List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenterorg). Only courses that appear on your school's approved List of NCAA Courses will be used in the calculation of the core GPA. Lse the list as a guide.
- The current Division II core GPA requirement is a minimum of 2.000 . Division II core GPA required to be eligible for competition on or after August 1, 2018, is 2.200 (corresponding testscore requirements are listed on the Sliding Scale on Page No. 2 of this sheet).
- The minimum Division II core GPA required to receive athletics aid and practice as a partial gualifier on or after August 1, 2018, is 2.000 (corresponding test-score requirements are listed on the Sliding Scale on Page No. 2 of this sheet).
- Remember, the NCAA core GPA is calculated using NCAA core courses only.

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                        DIVISION II
16 Core Courses
3 years of English
2 years of mathematics (Algebra I
or higher)
2 years of natural/physical science
    (1 year of lab if offered by high
    school).
3 years of additional English.
    mathematics or natural/physical
    science.
2 years of social science.
4 years of additional courses (from
    any area above, foreign language
    or comparative
    religion/philosophy).
```


## PROGRAMS OF STUDY

Quality education should help every student acquire the knowledge, skills, and attitudes necessary to become selfsupporting members of society. This goal can be achieved either by preparing students for direct job-entry after graduation or by post-graduate study and eventual entry into the job market. To this end the Board of School Directors has approved College Preparatory and Technical School programs of study.

Students will be required to select and follow a prescribed program of studies. The specific course content of these programs has been designed to meet each student's individual academic needs. The minimum course load for all students in grades 9 through 12 is six core courses in each year (three core courses each semester), plus additional elective courses that are required to meet the graduation requirements. With guidance from home and school, each student will identify a program which is best suited for him/her.

## COLLEGE PREPARATORY PROGRAM:

The College Preparatory Program is designed for students planning to attend a 2-year or 4-year college or university following high school. Students are required to carry core academic courses in addition to electives.

## COLLEGE COURSES WHILE IN HIGH SCHOOL:

Palisades High School may award high school credit for college courses taken in grades 9-12 at an approved degreegranting college or university provided the student completes and secures permission through a "Request for College Credit" form PRIOR to the start of the college course and submits an official college transcript at the conclusion of the course. Students seeking this opportunity should understand that the grade awarded by the college will be reported on the high school transcript and calculated into grade point average and rank in class. Students and their parents are responsible for all costs incurred (tuition, transportation, books and materials, etc.). Interested students should discuss this opportunity with their counselors. Students must complete an "Application to Receive High School Credit for College Course" PRIOR to registering for the course.

## CYBER ACADEMY:

The Palisades Cyber Academy is a fully accredited subsidiary of Palisades School District. The courses and learning options are aligned with PA standards and are the same courses that have been reviewed and approved by the Palisades School Board of Directors. To continue our tradition and value for community education, our PCA online classes are completely instructed by Palisades' teachers who hold Pennsylvania teaching certification and are highly qualified in Pennsylvania as defined by the No Child Left Behind Act. The Palisades School District provides all of the software and resources needed by students of PCA. Additionally, all full-time PCA cyber students receive a laptop that is owned and maintained by the district. Students will be able to successfully complete all course work online using school issued technology and email. All laptops are configured with an internet filter to protect students online. Student's schedules are flexible based on individual needs. For more information please contact Mrs. Carole Lee Deemer and Mrs. Aimee Trieu, Deans of Cyber Academy, at cdeemer@palisadessd.org or atrieu@palisadessd.org

## TECHNICAL SCHOOL:

The Upper Bucks County Technical School is an extension of Palisades High School and offers additional opportunities for vocational, technical or occupational training. These educational programs are available to any student in grades 10, 11, and 12. The Course offering book from the Upper Bucks County Technical School will further explain articulation agreements that most programs have with post-secondary institutions. You may obtain college credits for high school work that is done at the technical school. Many courses also carry National Certification credentials for students who qualify.

Ninth graders will be considered on a case by case basis, provided there are openings in the shop areas after upperclassmen has been assigned.

## ONLINE COURSES BEING OFFERED

*Courses titled "online" are offered completely online, with support provided as needed by the course instructor and/or in the cyber center. Courses titled "blended" are those in which students meet some days of the academic cycle in the classroom with their course instructor, but are not required to meet in the classroom on other days.

Business: Financial Literacy Online

English: Online English 11-1; Online English 12-1; Blended English 10, SAT Prep Online
Math: Online Algebra II; Online Introduction to Statistics

Science: Online Natural \& Environmental Science; Online Applied Physics; Blended Chemistry I

Social Studies: Online Cultural Diversity; Online Economics; Government \& Development of Public Policy Online

Wellness/Fitness: Online Health; Online Physical Education; Online Driver Education
Electives: Blended MOOC Seminar

## GRADE LEVEL PROGRAMS

| FRESHMAN PROGRAM |  |
| :---: | :---: |
| Subject Area | Grade 9 |
| ENGLISH | English 9 |
| MATHEMATICS | (See Recommended Course Sequence in Math Section) Algebra I-A, Algebra I-B, <br> Algebra 1, Honors Algebra II, (Teacher Recommendation Only) |
| SCIENCE | Biology - Level 1 or 2 |
| SOCIAL STUDIES | U.S. \& the World II - Level 1 or 2 |
| WORLD LANGUAGE | World Language |
| WELLNESS and FITNESS | Physical Education -9 |
| ELECTIVES | 2.5 Credits |


| TECHNICAL PROGRAM |  |  |  |
| :---: | :---: | :---: | :---: |
| Subject Area | Grade 10 | Grade 11 | Grade 12 |
| ENGLISH | English 10 | English 11 | English 12 |
| MATHEMATICS and SCIENCE | Approved Math Course and <br> Approved Chemistry or <br> Physics Course | Approved Math <br> Course And <br> Approved Chemistry <br> or Physics Course | Approved Mathematics or Science <br> Course (Math must be scheduled if <br> Keystone Math score is not at least <br> Proficient) |
| SOCIAL STUDIES | Modern World History | U.S. \& the World III | Cultural Diversity |
| WELLNESS and FITNESS <br> PROGRAM AT UPPER BUCKS <br> COUNTY TECHNICAL SCHOOL | *Phys. Ed/Health @Tech <br> School | None | None |
| ELECTIVES | Technical Course | Technical Course | Technical Course |

## COLLEGE PREPARATORY

| Subject Area | Grade 10 | Grade 11 | Grade 12 |
| :---: | :---: | :---: | :---: |
| ENGLISH | English 10 | English 11 AP English Language and Composition | English 12 AP English Literature and Composition |
| SOCIAL STUDIES | Modern World History | U.S. \& The World III AP U.S. History | Cultural Diversity AP European History AP U.S. History |
| MATHEMATICS | Continuation of current mathematics program of studies. Tenth grade students MUST take two mathematics courses. <br> Upon completion of program, students may choose from math electives. |  |  |
| SCIENCE | Chemistry I <br> Applied Chemistry **Applied Ecological Science | Physics <br> Applied Physics Applied Chemistry | Science of Choice |
| WORLD LANGUAGE | Level III | Level IV | AP or different World Language |
| WELLNESS and FITNESS | Phys Ed Option ***Health | Phys Ed Option ***Health | Phys Ed Option ***Health |
| ELECTIVES | 2.0 Credits <br> 1.5 credits | 2.0 Credits <br> 2.5 Credits | 2.0 Credits <br> 2.5 Credits |

*If you plan on attending college after high school, at least 2 (two) years of the same World Language are strongly recommended by college admissions staff.
**Dependent upon Keystone Performance
***Health only needs to be taken one time

## CAREER PATHWAYS PROGRAMS

## BUSINESS CAREER PATHWAY:

The Business and Technology department recognizes the importance of introducing and connecting our students to a growing and evolving global workforce. The Business Career Pathway program prepares students for a postsecondary education and/or a career in business. Our pathway will allow students to explore careers in the field while gaining the essential skills necessary to compete in the competitive job market both globally and locally.

The Business Career Pathway involves 4 areas of focus:

- Prerequisites \& Corequisites are required courses that are necessary to qualify for most postsecondary programs.
- Required Courses are key courses that anyone considering the business field should take.
- Electives are a selection of courses that offer a breadth of experience offering additional opportunities in business and technology as well as other diverse courses that will increase a student's skill set as they pursue their interests in the business field.
- Field experiences ( 20 hours) may vary depending on the availability of local partners. The best effort will be made to provide opportunities for all students in all interest areas.


## By choosing elective courses in a given area, students have the ability to focus on a certain aspect of the

 business field.TO TAKE A BUSINESS COURSE, STUDENTS DO NOT HAVE TO BE ENROLLED IN BUSINESS CAREER PATHWAYS

| Required Courses - $\mathbf{3 . 5}$ credits total |  | Elective courses - at least $\mathbf{3 . 5}$ credits |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Accounting I | .5 credit | Accounting II | .5 credit |  |
| Business Concepts | .5 credit | AP Computer Science Principles | 1 credit |  |
| Business Seminar | .5 credit | MOOC | .5 credit |  |
| Entrepreneurship | 1 credit | Multimedia Communications | .5 credit |  |
| Marketing | .5 credit | TV Video I | 1 credit |  |
| Financial Literacy | .5 credit | TV Video II | 1 credit |  |
|  |  | TV Video III | 1 credit |  |
|  |  | AP English | 1 credit |  |
|  |  | AP World Language | 1 credit |  |
|  |  | Calculus or AP Calculus | 1 credit |  |
|  |  | Economics | 1 credit |  |
|  | Journalism | .5 credit |  |  |
|  |  | Statistics or AP Statistics | 1 credit |  |
|  |  | College business course - prior approval needed from Principal | 1 credit |  |

## EDUCATION CAREER PATHWAY:

The Education Career Pathway is for students interested in a career in early childhood, elementary, middle or secondary education. This pathway explores the postsecondary education requirements needed of a teacher, counselor and teacher assistant and/or opportunities for a career in early childcare.

Students in the Education Career Pathway will complete coursework to prepare them for the postsecondary credits needed to earn and Associate or Bachelor's degree or pursue a career after graduation. Students develop skills in literacy, research, cultural awareness, and technology through coursework and field experience, including classroom observations and shadow experiences with educators to see the planning and preparation that supports educator and student relationships in the classroom. Job shadow opportunities will be available within the Palisades School District and also in other districts to provide a variety of classroom experiences.

| Required Courses: |  | Choose $\mathbf{3 . 0}$ credits from the following: |  |
| :--- | :--- | :--- | :--- |
| Global Issues Seminar | .5 credit | AP World Language | 1 credit |
| Intro to Stats or AP Statistics | 1 Credit | Business Seminar | .5 credit |
| Multimedia Communications | .5 credit | MOOC related to Education | .5 Credit |
| Level III World Language | 1 credit | Drawing \& Painting I or Graphic Communications | 1 Credit |
| Education Pathway Seminar | .5 credit | AP Computer Science | 1 Credit |
| Effective Communication | $.5 . c r e d i t ~$ | Pre-approved elective within education content area | 1 Credit |
|  |  | Dual enrollment course (Psychology, Sociology, <br> Foundations of Education, Exceptionalities, Human <br> Development) | 1 Credit |
|  |  | Pre-approved dual enrollment course <br> Cultural Diversity or Government \& Development of <br> Public Policy (grad project must relate to education) | 1 Credit |

## ENGINEERING \& DESIGN PATHWAYS:

Preparing students for post-secondary education leading to a career in Engineering, Engineering Technology, and Art is the purpose of the Engineering and Design Pathway. The three pathways within this area will allow students to explore careers in the field while gaining essential skills and experiences that will prepare them for post-secondary education. Engineering and Art are diverse career clusters with jobs that require different levels of post-secondary education, whether it be an Associate's or Bachelor's degree. This program allows students to be exposed to the Engineering and/or Art fields while having an authentic and genuine interaction with local professionals.

Students will engage in the department course offerings while taking relevant coursework for each pathway. Students will interact with industry professionals while completing a 20 -hour field experience. Upon successful completion of the program, students will meet with our pathway advisory board consisting of business partners and educational professionals to discuss their experience.

## ENGINEERING PATHWAYS

Recommended for students who will pursue an Engineering Degree at a four-year college or university.
*Level I college preparatory courses are required

| Required Courses: |  | Choose 4 from the following: |  |
| :--- | :--- | :--- | :--- |
| $\begin{array}{l}\text { Introduction to Engineering } \\ \text { Design }\end{array}$ | $\begin{array}{l}\text { Credit }\end{array}$ | *AP Math and Science Courses Highly Recommended |  |$]$

## ENGINEERING TECHNOLOGY PATHWAYS

Recommended for students who will pursue a degree in Engineering Technology at a four-year program to become a technologist or a two-year degree to become a technician.

| Applied Physics or Physics I | 1 credit | Choose 4 credits from the following: |  |
| :--- | :--- | :--- | :--- |
| Introduction to Engineering | 1 credit | Architecture I | 1 Credit |
| Algebra I or Algebra IB and proficient <br> performance on Algebra I Keystone Exam | 1 credit | Computer Science I or AP Computer Science (A <br> or Principles) | 1 Credit |
|  |  | 1 Credit |  |
|  |  | 1 Credit |  |
|  | UBCTS Electrical Technology | 3 Credit |  |
|  | UBCTS Mechatronics - repeatable for credits | 3 Credit |  |
|  | UBCTS Machining Technologies | 3 Credit |  |
|  | College course (Pre-approval required from <br> Department Chair) | 1 Credit |  |

## ART \& DESIGN PATHWAYS:

Recommended for students who will pursue a degree in either fine arts or media arts. A degree in fine arts can prepare students for careers in artistic fields such as sculpture, drawing, painting, and other visual arts. Degrees focusing on the more commercial aspects of art are often considered media arts.

| Required Courses for Pathway: |  | Choose 3 credits from the following: |  |
| :---: | :---: | :---: | :---: |
| Drawing and Painting I | 1 Credit | Architecture I | 1 Credit |
| Drawing and Painting II | 1 Credit | Architecture II | 1 Credit |
| 3D Design and Sculpture I | 1 Credit | Graphic Communications | 1 Credit |
| Studio Art or AP Studio Art | 1 Credit | 3D Design and Sculpture II or III | 1 Credit |
|  |  | Anatomy and Physiology | 1 Credit |
|  |  | Multimedia Communications | . 5 Credit |
|  |  | Marketing | . 5 Credit |
|  |  | MOOC in art or design | . 5 Credit |
|  |  | Introduction to Engineering Design | 1 Credit |
|  |  | College Art Elective | 1 Credit |

## GLOBAL STUDIES PATHWAY:

The World Language Department recognizes the importance of preparing and connecting our students to the global community. The Global Studies Pathway Program prepares students for a postsecondary education and/or a career in which proficiency in world language(s), knowledge of world cultures and an understanding of global issues are important.

The pathway affords students the opportunity to explore careers in the field, while gaining the essential skills and knowledge to prepare students for global citizenship and to participate in the global market. Furthermore, the Global Studies Pathway will partner with higher education institutions and multinational/international companies where students will gain experience with individuals working in global studies and related fields.

Through the pathway, students will improve their world language proficiency, compare and contrast the products and practices of cultures, analyze global issues and participate in the global community. Advanced Placement and college level courses will offer interdisciplinary coursework. In the elective courses, students will complete projects by incorporating an international or global focus. Furthermore, the pathway affords students the opportunity to pursue real-world interests and build professional networks.

Students will participate in a variety of external experiences to employ their language skills, explore careers, and interact with native speakers and professionals, while increasing their knowledge of global issues. Students will document their academic and personal growth as global citizens through reflection. Upon successful completion of the Global Studies Career Pathway Program, students will meet with our Pathway Board to discuss their learning and experiences.

## TO TAKE A WORLD LANGUAGE COURSE, STUDENTS DO NOT HAVE TO BE ENROLLED IN THE GLOBAL STUDIES PATHWAY

## Core Courses (4 credits)

REQUIRED (2.5 CREDITS)
Level III French, German or Spanish (1 credit)
Level IV French, German or Spanish (1 credit)
GLOBAL ISSUES SEMINAR ( 0.5 credit)

## ELECTIVE (1.5)

AP French, German or Spanish (1 credit)
AND/OR
Second World Language: Level 1 French, German or
Spanish (1 credit)
AND/OR
Second World Language: Level 2 French, German or
Spanish (1 credit)
AND/OR
Less Commonly Taught Languages: Arabic ( 0.5 credit)
AND/OR
Less Commonly Taught Languages: Chinese ( 0.5 credit)

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Interdisciplinary Electives (3 credits)
Introduction to Statistics or AP Statistics (1 credit)
AP European History or Cultural Diversity* or
Development of Public Policy* (1 credit)
(graduation project focus must be related to a global
theme)
Business Concepts (0.5 credit), or Marketing (0.5)
(projects must contain an international focus)
MOOC (0.5 or 1 credit) in a Global Studies field*
Journalism (0.5 credit or 1.0 credit)
(writing must contain an international focus)
Other courses may be pre-approved by the World
Language Department Chair
(including pre-approved college courses)
*approved by World Language Department Chair
Field/Cultural/Career Experiences with reflection
(please see Global Studies Pathway mentors for more
information)
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-Certificate issued at completion of Pathway Program
-Recommended World Language Club Membership

## MEDICAL CAREER PATHWAY:

The intent of the Medical Career Pathway is to prepare students for post-secondary education leading to a career in the medical field. Students will be exposed to valuable experiences in the field and take coursework that will prepare them for post-secondary education and the job market beyond. The pathway utilizes partnerships with local medical providers and community colleges to offer students experiences beyond the scope of a traditional high school curriculum.

The medical field is diverse with careers that require different levels of post-secondary education ( 2 years for some Associates Degrees to $12+$ years for certain Medical Board Certifications). One goal of the Medical Careers Pathway is to expose students to the varied opportunities in the field and to have students be able to have a general understanding of the requirements of each job.

## The pathway involves 4 areas of focus:

- Prerequisites \& Corequisites are required courses that are necessary to qualify for most post-secondary programs. These courses are typical for most students that have plans for post-secondary education, but it is important to emphasize these particular courses. These courses are also needed for other required courses.
- Required Courses are key courses that anyone considering the medical field should take. They include high level math and science courses that will prepare students for similar coursework beyond high school.
- Electives are a selection of courses that offer a breadth of experience offering additional opportunities in science and math as well as other diverse courses that will increase a student's skill set as they pursue their interests in the medical field.
- Field experience may vary depending on the availability of local partners. The best effort will be made to provide opportunities for students, although we are often limited by the providers. Preference will be given to students who have completed a large majority of coursework prior to their senior year and have demonstrated exemplary educational performance.


## Prerequisites \& Corequisites (alternative courses may be used in specific circumstances)

Algebra l-1 (Proficient on Keystones)
Biology 1 (Proficient on Keystones)
Chemistry I
Physics I or AP Physics 1

| Required Courses: |  | Choose 4 from the following: |  |
| :---: | :---: | :---: | :---: |
| Anatomy \& Physiology | 1 Credit | Advanced Science not chosen in column 1 | 1 credit |
| Advanced Science (pick 1) <br> - AP Biology <br> - Chemistry II <br> - Anatomy \& Physiology II | 1 Credit | Physics II | 1 credit |
|  |  | Accounting I | . 5 credit |
|  |  | Business Concepts | . 5 credit |
|  |  | College course with prior approval | 1 credit |
|  |  | World Language - Level IV or AP | 1 credit |
|  |  | Calculus | 1 credit |
| Advanced Math (pick 1) <br> - Statistics or AP Statistics | 1 Credit | MOOC related to science/medicine Science department chair approval required | 1 credit |

Field Experience: First Aid / CPR / AED Certification, prior to senior year: Job shadow experience of student's choice (2 different providers for a total of at least 10 hours).
Senior year: St. Luke's field experience or other experience approved by Science Department Chair (20 hours minimum)

## COURSE DESCRIPTIONS

## ART AND ENGINEERING DESIGN

## 3-D DESIGN \& SCULPTURE I

Credit: 1

## Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN
Prerequisite: none
This course provides students with experience of applying the elements of art and principles of design to the creation of 3-dimensional art work in a variety of mediums. The manipulation of the materials will provide the students with a process of investigation, growth and discovery. Hands-on exploration of found materials, clay, plaster, metal, paper, glass, and wire will be utilized. This course is separated into units of study based upon the sculptural technique and/or material(s). Students will also have the opportunity to work on the pottery wheel. Students will learn the safe and appropriate use of tools and materials. No previous experience in working with 3 -dimensional materials is necessary in order to take this course. Field trips provide additional access and exposure to art resources.

## 3-D DESIGN \& SCULPTURE II

Credit: 1
Weight: 5
Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in 3-D Design \& Sculpture I

Meets: Daily/Semester<br>Dept: ART \& ENGINEERING DESIGN

In this course, students continue to investigate materials and processes relative to the three-dimensional arts. Students work on a series of problem sequences leading to final works investigating different issues than those encountered in 3-D Design and Sculpture I. Materials used in this course include metals, wood, stained glass, Precious Metal Clay (PMC), and clay. Students will continue to learn safe and appropriate use of tools and materials. Field trips provide additional access and exposure to art resources.

## 3-D DESIGN \& SCULPTURE III

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: Earned a minimum grade of C- in 3-D Design II with a passing grade

Meets: Daily/Semester<br>Dept: ART \& ENGINEERING DESIGN

Students taking this studio course will explore traditional and contemporary sculpture materials and processes at an advanced level. Emphasis is on both additive, subtractive, assemblage, and casting methods. Goals include acquiring technical skills, understanding the physical and expressive possibilities of diverse materials (such as soapstone, alabaster, precious metals, clay, and wood). Students will continue to learn safe and appropriate use of tools and materials. While some units of study are required by all students taking the course, each student will have the opportunity to develop a concentration or focus of study while working with specific materials or techniques. Field trips provide additional access and exposure to art resources.

Grades: 11-12
Repeatable for Credit: Yes
Prerequisite: Earned a minimum grade of C-in Drawing, Painting \& 2-D Design II

Meets: Every other day for a year Dept: ART \& ENGINEERING DESIGN

This course is designed to explore contemporary art and artists of the 20th and 21st century including current trends in the visual world. The course will concentrate on both technique and concept development. Studio Art provides students with the opportunity to produce digital artwork, drawing, painting, collage, and graphic design while exploring art history, criticism, and aesthetics.

AP STUDIO ART 2-D DESIGN
Credit: 1
Weight: 8

Grades: 11-12
Repeatable for Credit: No

Meets: Every other day/Year Dept: ART \& ENGINEERING DESIGN

Prerequisite: Earned a minimum grade of C- in Studio Art \& Approved AP Application

This course is designed to further students' knowledge and techniques of contemporary artists of the 21st century and links to the past. The course provides an opportunity to integrate both the elements and principles of design into various works of art along with teaching art history, criticism, aesthetics, and visual culture. In addition, this course will be used to provide the students with the opportunity to produce a body of artwork that can be used towards a personal portfolio, for submission to both Advanced Placement Board for college credit, and admission to art colleges and universities.

DRAWING, PAINTING \& 2-DIMENSIONAL DESIGN I Credit: 1
Weight: 5

## Grades: 9-10-11-12

Repeatable for Credit: No
Prerequisite: None

This is a studio based course that introduces students to various painting, drawing and computer techniques used for art production. Students will produce basic level art projects in design, drawing and painting while understanding basic knowledge of western art history and art criticism.

DRAWING, PAINTING \& 2-DIMENSIONAL DESIGN II Credit: 1
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No

Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

Prerequisite: Earned a minimum grade of C-in Drawing, Painting and 2-D Design I

This is a studio based course which provides an opportunity for students to continue their basic skills and knowledge of painting, drawing and computer techniques used for art production. Students will provide art projects in design, drawing and painting while understanding basic knowledge of contemporary and 21st century artists and techniques.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

This course is designed to further students' knowledge and techniques of contemporary artists of the 21st century and links to the past. The course provides an opportunity to integrate both the elements and principles of design into various works of art along with teaching art history, criticism, aesthetics, and visual culture. In addition, students will develop their portfolio for college applications or AP credit.

## COMPUTER ANIMATION

Credit: 1
Weight: 5

Grades: 10-11-12
Repeatable for Credit: No

Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

Prerequisite: Earned a minimum grade of C- in Drawing, Painting \& 2-D Design II or a minimum of one-year experience with the 3DS Max program and with recommendation of the teacher.

This course will explore an overview of the history of animation and computer animation, visual aesthetics, cinematography and the production of an animated short. Students will learn to model using a 3D animation program along with the application of texture mapping, lighting, camera movement, and animation.

## GRAPHIC COMMUNICATIONS

## Credit: 1

Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Graphic Communications, also known as Digital Design, is one way to create commercial design and works of art through technology. In this course students will explore an overview of graphic communication areas such as advertising design, graphic arts, print production, product design and printed materials. Students will use Adobe Suite including Photoshop, Illustrator and In-Design.

## ENGINEERING DESIGN and DESIGN CONCEPTS

Students considering a profession within a technical field, such as Engineering and Design should consider these courses. Technological career choices could include: Robotic Technology, Medical Technologies, Automotive Technologies, Manufacturing Technologies, Construction Technologies, etc. Interested students should take the courses Engineering Design I-Mechanical, Engineering Design II-Electrical, Robotics I and II and Design Concepts I. These classes will provide a solid foundation for entering all of these careers. Students who want to enter the Design Careers such as Architecture, Industrial Design, Interior Design, or Product Design will need to take the classes of Design Concepts I, II and III.

## Architectural Design I

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Credit: 1

The primary focus of the course will be the design and engineering of civil architectural problems using threedimensional design software. Students will use computer aided design programs which are used in the industry today (AutoCAD and Autodesk Revit). They will explore topics such as: prominent architects in history, innovative building techniques, individual and group needs in designing spaces, cost analysis of structures, building codes and regulations, traffic patterns, landscaping, etc. Architectural design projects will encompass the design and function of primarily residential spaces. Emphasis will be placed on developing problem solving, critical thinking, time management, and exploring the impact of technology on the field of civil engineering, architecture, and design.

## Architectural Design II

Credit: 1
Weight: 6

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Architectural Design I

Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

Architectural Design II allows the designer to create commercial spaces as well as the industrial design of common structures. Students will use computer aided design programs which are used in the industry today (AutoCAD, Autodesk Inventor, and Autodesk Revit). Students will apply theory of structural design and support, utilities, site considerations, and building and construction codes to their design. In addition, students will acquire the skills and background necessary to pursue various post-secondary architectural and engineering design programs. Emphasis will be placed on developing problem solving and critical thinking skills in planning, developing and application of design projects.

Intro to Engineering Design

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Credit: $1 \quad$ Weight: 5
Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

In Engineering Design, the student will develop an understanding of mechanical drawings and their application to engineering and robotics. Technical drawings include multi-view, isometric, auxiliary, and working. Engineering design concepts and methods are applied through research, models, interdisciplinary study, and development of career exploration. Students will use computer aided design programs found in the industry today (AutoCAD and Autodesk Inventor). Students also solve real life problems in engineering and robotics.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Intro to Engineering Design

Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

This course introduces basic engineering concepts such as force, work, rate, resistance, energy, power, and momentum and how to apply them in a mechanical system. The student will develop thinking processes aimed at solving engineering design problems. The problem solving procedure developed in this course is an invaluable tool that can be used in any professional or personal situation the student may face. Students work in groups and are given a real-world mechanical/robotics problem to solve. By strictly defining the problem, brainstorming, discussing, building, testing and evaluating, students will have to actually solve the given problem and present the results to the class. Students also develop a design portfolio outlining the procedures used throughout the design process. Students create a set of manufacturing drawings using Autodesk Inventor. In addition to engineering problem solving, students will explore various emerging technologies and examine the role of technology in both society and their personal lives.

## ENGINEERING DESIGN -ELECTRICAL SYSTEMS Credit: 1 Weight: 6

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Intro to Engineering Design

Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

This course introduces basic Electrical Engineering concepts such as analog and digital electronics theory. Students develop a thinking processes aimed at solving electrical engineering design problems. The problem solving procedure is refined in this course in order to tighten the development process. The brainstorming section is expanded to include a more in-depth understanding of electrical concepts through research, text work and through the use of interactive software tools. The skills refined at this level give the student a solid understanding in regards to "real-world" product development methods. Students will also work with programmable logic controllers and develop electrical systems for competitive robotics.

## ROBOTICS I

Credit: 1
Weight: 6

Grades: 11-12
Repeatable for Credit: No

## Meets: Daily/Semester

Dept: ART \& ENGINEERING DESIGN

Prerequisite: Earned a minimum grade of C- in Mechanical and Electrical Engineering

Students will be introduced to the world of Robotics in this course. The Vex Robotics curriculum for developing engineering skills will be utilized. Students will continue to use the "systems approach" for problem solving creating their solutions in order to build upon their existing communication skills. The problem will involve students learning manufacturing skills, CAD skills, DC Electronics and students working prototypes. Student teams will compete in a competition at the end of the semester. Any student interested in technical careers will want to take this course.

## ROBOTICS II

Credit: $1 \quad$ Weight: 6

Grades: 11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C-in Robotics I

Meets: Daily/Semester
Dept: ART \& ENGINEERING DESIGN

Robotics is one of the fastest growing industries in the United States. This course will give students the opportunity to enhance their problem-solving skills while creating a solution for the competition held at the end of the semester. Students will use their CAD, manufacturing and electronic skills to design, manufacture and test their prototypes. In utilizing Inventor in the design process, students will be able to animate and test their designs before starting construction. All students interested in technical careers will want to take this class.

## BUSINESS AND TECHNOLOGY

## Business Career Pathway

The Business and Technology department recognizes the importance of introducing and connecting our students to a growing and evolving global workforce. The Business Career Pathway program prepares students for a postsecondary education and/or a career in business. Our two pathways (Marketing and Media, Accounting and Finance) will allow students to explore careers in the field while gaining the essential skills necessary to make them competitive in the job market both globally and locally.

The Business Career Pathway program revolves around four core concepts: extensive course work in the business department, advanced technical classwork opportunities for Advanced Placement or College Level coursework, real world student interests and networking experiences. Students start by learning the basics of finances, marketing, communication media and entrepreneurship. Students will obtain industry certifications, interact with industry professionals as well as complete a 20 -hour field experience. Upon successful completion of the program, students will meet with our pathway advisory board consisting of business partners and educational professionals to discuss their experience.

## ACCOUNTING I

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: BUSINESS \& TECHNOLOGY

In this course, students will learn the fundamental accounting cycle for a service business. Students will use MS Excel to complete textbook problems and create real world businesses. Accounting careers and concepts are explored using the internet and project based learning.

## ACCOUNTING II

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Passing grade in Accounting I
This course is a continuation of concepts studies in Accounting I. Specifically the merchandising business accounting cycle will be studied. In addition to text book and real world problems, students will work towards and earn a Quicken Loans certification.

BUSINESS SEMINAR
Credit: 0.5
Meets: Every other day/Semester
Dept: BUSINESS AND TECHNOLOGY

Grades: 11-12
Repeatable for Credit: No
Prerequisite: None

Weight: 5
Meets: Every other day/Semester
Dept: BUSINESS \& TECHNOLOGY

Students will learn about various career paths in the business world through research, guest speakers, and field experiences. They will explore aspects of each career, such as job requirements, how to be a competitive candidate, and current issues in the field. Students will go off-site to complete a number of field experiences during class and will be required to present information on their experiences. Students will also prepare digital resumes. They will participate in mock interviews with professionals in the business field as a culminating activity.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: BUSINESS \& TECHNOLOGY

The goal of this course is to give students a well-rounded understanding of how businesses operate in the U.S. and overseas. The class will cover the following topics: how businesses are set up by researching the advantages and disadvantages of sole proprietorships, general partnerships, LLPs, LLCs, C Corporations and S Corporations. Additional topics include: job preparation skills, business ethics, labor unions and international business, business etiquette (including business luncheon and business meeting). Some long-range major projects are: CEO research; local/international company research. Guest speakers on specific topics visit the class.

## COMPUTER SCIENCE I

Credit: 1
Weight: 6

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Algebra 1

Meets: Daily/Semester
Dept: BUSINESS \& TECHNOLOGY

In Computer Science I, students will be introduced and learn the commands and syntax of several programming/web scripting languages. The students will create structured programs using top-down design, web scripting techniques, and object oriented design. The topics covered include: web scripting, markup languages, animation scripting and structured programming. In addition, an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course. Students should possess strong math skills and reasoning ability.

## AP COMPUTER SCIENCE PRINCIPLES

Credit: 1
Weight: 8

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Completion of Algebra 1 with a minimum grade of C -

Meets: Daily-or every other/Year Dept: BUSINESS \& TECHNOLOGY Pathway Program: College Prep/Tech

Among this course's objectives is to supply students with a comprehensive introduction to the fundamentals of the discipline of computer science. This course will use programming in several different languages as a vehicle to introduce these fundamentals, including such topics as algorithms, abstraction, data, global impact, and internet technologies. Though the course is programming-heavy, it should be stressed that this is not a "programming course"; rather, this course should be considered one of problem-solving, creativity, and exploration. By year's end, students will have a richer understanding of key principles in computer science. This course follows the College Board's AP Computer Science Principles Curriculum.

## ENTREPRENEURSHIP

Credit: 1
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No

Meets: Daily/Semester
Dept: BUSINESS \& TECHNOLOGY

Prerequisite: Earned a minimum grade of $C$-in Business Concepts

The major focus of the class is the formation of a student company. After completing and analyzing marketing research surveys, students decide what product/service to sell. From that point officers are elected, materials are purchased, and the business is advertised. Students gain hands-on and practical experience about the procedures of starting, running, and liquidating a business. In addition to running the company, students will prepare a formal business. Other supplemental projects and activities include: business ethics, franchises, research of entrepreneurs, research of successful and unsuccessful companies and various readings on current business trends and technology.

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: BUSINESS \& TECHNOLOGY

Students taking Personal Finance will learn the knowledge, skills, and processes required to make sound financial decisions and manage their own personal finances. Topics include: goals and decision making, careers and planning, budgeting, saving and investing, credit, banking services, transportation issues, housing issues, risk protection. Speakers will be brought in to discuss specific topics. All activities will be hands-on and will engage students in critical thinking, problem-solving and decision-making. This class is a requirement for graduation for all students starting with the class of 2021 . This course will count as $1 / 2$ credit of the 6.5 elective credits.

## MARKETING <br> Credit: $\mathbf{0 . 5}$ <br> Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Meets: Every other day/Semester Dept: BUSINESS \& TECHNOLOGY
Prerequisite: None
Students learn marketing principles with an emphasis on promotion and advertising in these specialty areas: travel and tourism, hospitality, e-commerce, international, sports, entertainment, fashion, and social media. This is a handson course held in a computer lab. Students will develop marketing strategies and create a variety of publications, including websites for projects. Students will be required to read a curriculum-related, non-fiction book and/or current articles chosen by the teacher from marketing publications.

## MULTIMEDIA COMMUNICATIONS

Credit: 0.5
Weight: 5
Grades: 9-10-11-12
Meets: Every other day/Semester
Dept: BUSINESS \& TECHNOLOGY
Repeatable for Credit: No
Prerequisite: None
This course emphasizes the skills needed to communicate effectively for various purposes using multimedia. Students will learn how to create effective digital images, graphics, infographics, web pages, blogs, videos, podcasts, slideshows, social media posts, spreadsheets and app designs. Students will be challenged to apply critical and creative thinking during this process, and will develop their presentation skills as they share their work with peers.

## TV/VIDEO PRODUCTION I

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Credit: $1 \quad$ Weight: 6
Meets: Daily/Semester
Dept: BUSINESS \& TECHNOLOGY
Pathway Program: College Prep/Tech

Students will be exposed to the TV/Video production field and will be responsible for the production of the high school's morning and afternoon shows. The principles and methodology of the entire television production process will be explored in depth. Students in this program will learn to operate studio and field cameras, video production switchers, character generators, and video editing equipment, lighting and audio systems. Each student will continue to build their communication skills by specialized writing for news and promotional script writing. Students will learn creative set design, computer animation and skills necessary to become a full producer.

Grades: 9-10-11-12
Repeatable for Credit: No

Meets: Daily/Semester
Dept: BUSINESS \& TECHNOLOGY
Pathway Program: College Prep/Tech

Prerequisite: Earned a minimum grade of C- in TV Video Production I \& Teacher Recommendation
TV/Video Production II is a rigorous continuation of TV/Video Production I. The course is designed to build on the basic video production principles learned in the first course. TV/Video II will incorporate both studio and field production techniques using both analog and digital technology. The class will work closely with our Community Relations Director in developing documentaries and informational ads about Palisades High School and the Palisades School District. In addition, the class will maintain and add programming to the Palisades School District's educational cable station.

## TV/VIDEO PRODUCTION III

Grades: 9-10-11-12
Repeatable for Credit: Yes

Credit: 1
Weight: 6

Prerequisite: Earned a minimum grade of C- in TV Video Production II \& Teacher Recommendation

Students who have successfully applied what they have learned in TV / Video I and II will be able to take their skills to the next level in TV / Video III. The purpose of the TV / Video III is to allow students to work in the field. Through a variety of projects, they will create stories for Palisades High School as well as Palisades School District. Students will be covering stories that happen in and around the Palisades School District. The stories will be captured and edited then shown on our Service Electric cable station and/or the PSD website. Students who take the course are required to film at least one after school or evening event per marking period. The course will demand collaborative, creative, critical thinking and decision making skills. It will prepare students for college and or a career video production.

## PALISADES SCHOOL DISTRICT CYBER ACADEMY

The Palisades Cyber Academy is a fully accredited subsidiary of Palisades School District. The courses and learning options are aligned with PA standards and are the same courses that have been reviewed and approved by the Palisades School Board of Directors. To continue our tradition and value for community education, our PCA online classes are completely instructed by Palisades' teachers who hold Pennsylvania teaching certification and are highly qualified in Pennsylvania as defined by the No Child Left Behind Act. The Palisades School District provides all of the software and resources needed by students of PCA. Additionally, all full-time PCA cyber students receive a laptop that is owned and maintained by the district. Students will be able to successfully complete all course work online using school issued technology and email. All laptops are configured with an internet filter to protect students online. Student's schedules are flexible based on individual needs. For more information, please contact Mrs. Carole Lee Deemer and Mrs. Aimee Trieu, Cyber Deans, at cdeemer@palisadessd.org and atrieu@palisadessd.org

Courses listed below may be titled either "online" or "blended." Those titled "online" are offered completely online, with support provided as needed by the course instructor and/or in the cyber center. Courses titled "blended" are those in which students meet some days of the academic cycle in the classroom with their course instructor, but are not required to meet in the classroom on other days.

## Grades: 9

Repeatable for Credit: No
Prerequisite: Recommendation of PALMS Math Dept. \& performance on placement tests
This is a web-based course. The Algebra I objectives are to develop a thorough understanding of the basic concepts and structure of the real number system and the applications of linear functions. Course content includes operations with real numbers, ways of displaying data, solving equations and inequalities, analyzing graphs of functions and relations, linear models, systems of equations in two variables, exponent rules, polynomials and factoring, and problem solving.
ALGEBRA II-2 ONLINE Credit: $1 \quad$ Weight: 5

## Grades: 10,11, 12

Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Geometry

Meets: Daily/Semester
Dept: MATHEMATICS

This is a web-based course. Content includes a study of the real and complex number systems; using algebra and graphing techniques with linear, quadratic, exponential, polynomial, radical and other types of functions to solve problems; working in two or more variables; using equations, inequalities and matrix equations; linear programming; and an introduction to probability and statistics. This course goes into depth on each topic by presenting various approaches and methods, and also includes real-life applications.

## APPLIED PHYSICS ONLINE

Credit: 1
Weight: 5
Grades: 10-11-12
Meets: Daily/Semester
Repeatable for Credit: No
Dept: SCIENCE
Prerequisite: None
Physics can be understandable for all students! The course provides a more practical approach to the study of physics. Only basic algebra skills are required for the successful completion of this course. Some topics of study may include straight-line motion, projectile motion, momentum, and energy conservation.

## CHEMISTRY I BLENDED ONLINE

Credit: 1
Weight: 6

Prerequisite: Minimum grade of B - in Alg I is recommended, but not required

This is a web-based course taught in a blended format. The objective of Chemistry I is to involve students in the investigations of chemical systems and the connections between science and other courses. The basic generalizations that will be stressed are the chemical bond, periodicity in the behavior of the chemical elements, the quantum mechanical model of the atom, molecular structure, the mechanics of chemical reactions, the gas laws concept of the mole, and science and technology. The course is designed so that students can gain an understanding of the applications of basic chemistry. Students with a stronger algebraic background will feel more comfortable with the mathematical applications of this class.

## Grades: 12

Repeatable for Credit: No
Prerequisite: Availability to meet with instructor periodically throughout the semester

Meets: Daily/Semester
Dept: SOCIAL STUDIES

In the web-based course, students focus on developing social awareness, respect for others, and knowledge of cultural diversity as students prepare to take their place in a pluralistic and complex world. Students will examine the emerging field of cultural conflict analysis and conflict resolution and will have opportunities to learn and practice skills that will enable them to confront the contemporary political and humanitarian challenges of the world in the 21st century. This online course also provides students with the structure and guidance in completing their senior project.

## DRIVER EDUCATION ONLINE (ONLINE)

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: WELLNESS \& FITNESS

The primary goal of Driver Education/Intro to Health is designed to help students become responsible drivers, well aware of - and better able to manage - the risks associated with driving. Driver Education/Intro to Health also addresses such issues as resisting harmful peer and social pressures, exercising emotional control, and developing social responsibility. This course also provides students with an opportunity to learn the meaning of risk, how to avoid high-risk situations and how to minimize them if they're unavoidable. Throughout the text, students are given practical driving instruction, helpful tips and information, and risk-management strategies. Typical driving situations are described to engage students in evaluating and considering how they would manage risk. The goal of this course is to teach students about the factors that have an impact on driving so they will gain the confidence necessary to become safe, responsible drivers.

## ECONOMICS ONLINE

Credit: 1
Weight: 5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: None

This is a web-based course designed to give a basic understanding of important concepts and understandings in this discipline for students in the 21st century. A primary objective of the teaching of economics is to prepare students to make rational decisions, as individuals and as members of society based on objective analysis, and on the values of the choice makers. Students who elect this course will have abundant opportunities to develop skills in the areas of evaluation, analysis, interpretation, problem solving, decision making, and interdisciplinary studies and activities. The course incorporates math skills into most units. Some of the concepts in the course are taught at a level of above average difficulty.

Grades: 10
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of B in English 9-1 or 9-2

Meets: Semester
Dept: ENGLISH

This is a web-based course taught in a blended format. Students continue polishing strategies for reading and writing. An added emphasis in tenth grade is the development of critical reading, vocabulary, and test taking strategies appropriate for students taking standardized tests. Students analyze a variety of fiction and nonfiction materials from many perspectives and many cultures.

## ENGLISH 11 ONLINE

Credit: 1
Weight: 6 (11-1) 5 (11-2)

## Grades: 11

Repeatable for Credit: No

Meets: Semester<br>Dept: ENGLISH

Prerequisite: Earned a minimum grade of B in English 10-1 or 10-2 \& be available to meet with the instructor periodically throughout the semester.

In this web-based course, students will develop expository writing and intense critical reading of American classics. Students analyze literature from the early 1600s to the present. Students continue to develop vocabulary skills. A variety of prose writing techniques is studied and practiced. Test taking strategies are emphasized for students taking standardized tests, such as the SAT. Remediation is offered for those students who must retake the Keystone Literature exam towards the end of the course.

ENGLISH 12 ONLINE Credit: $1 \quad$ Weight: 6 (12-1) 5 (12-2)

## Grades: 12

Repeatable for Credit: No

Meets: Semester
Dept: ENGLISH

Prerequisite: Earned a minimum grade of B in English 11-1 or 11-2 \& be available to meet with the instructor periodically throughout the semester.

In this web-based course, students will study the development of British literature chronologically. A variety of reading and writing strategies will be applied to the study of literature and nonfiction essays. Composition styles will be reviewed and polished at this level, and the projects will be completed using an interactive curriculum. Tragedies and British literature from the Anglo-Saxon period to the contemporary will be emphasized.

## FINANCIAL LITERACY ONLINE

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Students taking Personal Finance will learn the knowledge, skills, and processes required to make sound financial decisions and manage their own personal finances. Topics include: goals and decision making, careers and planning, budgeting, saving and investing, credit, banking services, transportation issues, housing issues, risk protection. Speakers will be brought in to discuss specific topics. All activities will be hands-on and will engage students in critical thinking, problem-solving and decision-making. This class is a requirement for graduation for all students starting with the class of 2020. This course will count as $1 / 2$ credit of the 6.5 elective credits.

Prerequisite: Earned a B- or better in Modern World History. Available to meet with instructor periodically throughout the semester.

This web-based course focuses on the principles of American government at the national, state, and local levels. It demonstrates how government affects the students' lives and how they, in turn, can develop the skills to participate in influencing the decisions their governments make. Students will have opportunities to analyze issues, make decisions, and take action both in and out of the classroom.

## HEALTH ONLINE

Credit: 0.5
Weight: 5

Meets: Semester
Repeatable for Credit: No
Dept: WELLNESS \& FITNESS

Prerequisite: Earned a minimum grade of B- in English 11-1 or AP English Lang. and must complete a moodle training prior to start of class

In this web-based course, students will learn about the following topics: nutrition \& fitness; alcohol, tobacco, \& drugs; human sexuality; mental health; \& healthy relationships. This course will incorporate readings, discussions, audio and video presentations, reflection, and various projects into the learning process.

## INTRODUCTION TO STATISTICS ONLINE Credit: 1 Weight: 5

Grades: 11-12
Repeatable for Credit: No

Meets: Daily/Semester
Dept: MATHEMATICS

Prerequisite: Earned a minimum grade of C- in AATrig or Algebra III *Level 1 Jrs. who have completed Alg II and need one more math credit, may take Intro to Stats instead of AATrig.

This is a web-based course in which students will develop skills in statistical thinking, the assessment of credibility, and value of inferences made from data. Students will use statistical reasoning for the manipulation and integration of data. They will explore probability, single sample inferences, population definitions and comparisons, and linear regressions. Students will be exposed to a variety of statistical techniques, tools and resources.

## MOOC SEMINAR

Credit: $\mathbf{0 . 5}$ or 1
Weight: 5

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: None

This course will provide students with a cutting-edge learning experience. Driven entirely by their own preferences and interests, students will work with their instructor to develop an individual plan for the semester. This plan will include participation in one or more MOOCs (Mass Open Online Courses) available through one of several vendors (including world-class Colleges and Universities) and the completion of a comprehensive portfolio as the culminating course assessment. Participating students will learn independently and also benefit from working in a collaborative learning environment in which they and their classmates are pursuing different areas of interest/passion and sharing with each other and their instructor. The course will be flexible and completely individualized, supervised and assessed by a member of the high school faculty. Depending on the online courses chosen, participating students may be eligible to earn dual enrollment credit through a participating college or university.

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Biology

Meets: Daily/Semester
Dept: SCIENCE

In Online Natural \& Environmental Science, students will study the components of ecosystems and how they function. They will investigate human impacts on the environment at local, regional and global levels. Topics include issues with water, air, land and energy. During this course, students will use various online resources and interactive activities to explore the topics. Students will participate in online discussions and complete individual projects. Students interested in this course should feel comfortable with the use of computers and be self-motivated.

## PHYSICAL EDUCATION ONLINE

Credit: 0.5
Weight: 5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Physical Education I

Throughout this Online Physical Education course, students will be expected to complete all written assignments, activities, and projects as well as submit them properly. Students will be expected to perform the required physical activities. Students will also be expected to video tape certain activities to ensure that proper technique and form is being executed. It is the student's responsibility to work through the course at a self-directed pace. Physical Education is required for a minimum of three semesters throughout a student's high school career.

## U.S. \& THE WORLD III ONLINE

Credit: 1
Weight: 6 (Level 1) 5 (Level 2)

Grades: 11
Repeatable for Credit: No
Prerequisite: Availability to meet with instructor periodically throughout the semester
In this web-based course, students will study the development of the modern American nation. Beginning with the post-World War I era of the 1920s, students will study political, social and economic history, foreign policy, and the development of our current American society. In addition, the study of government as the foundation and an integral part of the American experience, will be included.

## SAT PREP CRITICAL READING \& WRITING ONLINE

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None
This is a web-based language arts course that builds knowledge, skills, and test-taking strategies required for the SAT examination. The units are based on recommendations from the College Board, developers of the SAT. Students in any grade (9-12) will benefit from an intensive study of vocabulary, reading strategies, and writing techniques. Even those students not planning on taking the SAT will improve their reading and writing skills.

## ENGLISH

## ADVANCED PLACEMENT ENGLISH: LANGUAGE \& COMPOSITION Credit: $\mathbf{1}$ Weight: $\mathbf{8}$

Grades: 11
Repeatable for Credit: No
Prerequisite: Approved AP Application

Meets: Every other day/Year or Daily/Semester Dept: ENGLISH

This course emphasizes high-level skill development in expository writing and critical reading. The student is expected to have strong language and writing skills. Students read a variety of prose from many different time periods, disciplines, and contexts. The goal for each student is to become a skilled writer for a variety of audiences and purposes. Students will compose narrative, exploratory, expository, and argumentative papers. At the conclusion of the course, students are expected to take the AP English Language and Composition exam. Summer readings, note taking, and completion of a variety of writing assignments are required. A test fee is required if the AP exam is taken. Buying the classics for this course is strongly suggested.
ADVANCED PLACEMENT ENGLISH: LITERATURE \& COMPOSITION Credit: 1 Weight: 8

Grades: 12
Repeatable for Credit: No
Prerequisite: Approved AP Application

Meets: Every other day/Year or Daily/Semester Dept: ENGLISH

This course emphasizes high-level skills in reading, literary analysis, and writing. The student is expected to read a wide range of literature and develop both insight and skills of expression. At the conclusion of the course, students are expected to take the AP English exam. Summer reading and completion of writing assignments are required. A test fee is required if the AP exam is taken. Buying the classics for this course is strongly suggested.
ADVANCED READING SEMINAR Credit: 0.5 Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester Dept: ENGLISH

This course is designed for students who would like to continue to develop their college level reading and vocabulary skills. Self-selected fiction and nonfiction are read and analyzed. Emphasis is placed on both developing strategies and understanding personal strengths and weaknesses when reading challenging material.

## CREATIVE WRITING

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester Dept: ENGLISH

This course is for students already grounded in the basics of literature. It is for those students who wish for more than an overview in writing fiction and are serious about developing their own creative writing skills. The emphasis is on exploring modern writers' styles. Students will be experimenting with the written form in various genres. Students are required to develop an original short story.

Grades: 11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: English

Is Teaching for me? Many students enter college and a major without a clear understanding of the profession, requirements, or skills necessary to succeed in one's chosen major of study. Through field experiences, long-range projects, cooperative learning, discussion, and reflective journal writing, this discussion-based course will expose students to the skills necessary to be successful as an educator. Students will also begin to develop the professional communication skills needed to work in the education profession.

## EFFECTIVE COMMUNICATIONS

Credit: $0.5 \quad$ Weight: 5

Grades: 9-10-11-12
Meets: Every other day/Semester
Dept: English
Repeatable for credit: No
Prerequisite: None

Effective Communications is a language arts-based course that will introduce students to the basic principles of communication. Beginning with recognizing and understanding communication styles, students will build strategies to develop effective communication skills in their personal lives, in the classroom, and career readiness. Students will apply written and speaking communications skills required in small group discussions, interviews, speeches and presentations.

ENGLISH 9
Credit: 1
Weight: 6 (9-1) 5 (9-2)
Grades: 9
Repeatable for Credit: No
Meets: Daily/Semester
Dept: ENGLISH
Prerequisite: None

Students develop strategies for independent critical reading and writing. Projects are developed using the writing process. Students analyze short stories, novels, drama, and poetry. They write a variety of expository, descriptive, narrative, and persuasive compositions. Students continue with vocabulary and grammar studies, and study skills development. Independent reading and responses to that reading are required at all levels. A research paper is required.

## ENGLISH 10

Credit: 1
Weight: 6 (10-1) 5 (10-2)

Grades: 10
Repeatable for Credit: No
Prerequisite: None

Meets: Daily/Semester
Dept: ENGLISH

Students continue polishing strategies for reading and writing in this course. An added emphasis in tenth grade is the development of critical reading, vocabulary, and test taking strategies appropriate for students taking standardized tests. Students take the Keystone Literature exam towards the end of the course. Students analyze a variety of fiction and nonfiction material from many perspectives and many cultures.

## Grades: 10

Repeatable for Credit: No
Prerequisite: Earned a minimum grade of B in English 9-1 or 9-2

Meets: Semester
Dept: ENGLISH

This is a web-based course taught in a blended format. Students continue polishing strategies for reading and writing. An added emphasis in tenth grade is the development of critical reading, vocabulary, and test taking strategies appropriate for students taking standardized tests. Students analyze a variety of fiction and nonfiction materials from many perspectives and many cultures.

## ENGLISH 11 <br> Credit: 1 <br> Weight: 6 (11-1) 5 (11-2)

Grades: 11
Meets: Daily/Semester
Repeatable for Credit: No
Dept: ENGLISH
Prerequisite: None
Expository writing and intense critical reading of American classics and other works are the focal points of this course both verbally and in writing. Students analyze American literature from the 1600 s to the present. Students continue to develop their vocabulary skills. A variety of prose writing techniques is studied and practiced. Test taking strategies are emphasized for students taking standardized tests, such as the SAT. Remediation is offered for those students who must retake the Keystone Literature exam towards the end of the course.

## ENGLISH 11 ONLINE

Credit: 1
Weight: 6 (11-1) 5 (11-2)
Grades: 11
Meets: Semester
Repeatable for Credit: No
Dept: ENGLISH
Prerequisite: Earned a minimum grade of B in English 10-1 or 10-2 \& be available to meet with the instructor periodically throughout the semester.

In this web-based course, students will develop expository writing and intense critical reading of American classics. Students analyze literature from the early 1600s to the present. Students continue to develop vocabulary skills. A variety of prose writing techniques is studied and practiced. Test taking strategies are emphasized for students taking standardized tests, such as the SAT. Remediation is offered for those students who must retake the Keystone Literature exam towards the end of the course.

## ENGLISH 12

Credit: 1
Weight: 6 (12-1) 5 (12-2)
Grades: 12
Repeatable for Credit: No
Meets: Daily/Semester
Prerequisite: None
A variety of reading and writing strategies is applied to the study of literature and essays. Students learn to analyze and interpret many genres of literature. Composition styles are reviewed and polished at this level, projects are completed, grammar is studied, and students give oral presentations. British literature and tragedies are emphasized.

## Grades: 12

## Meets: Semester

Repeatable for Credit: No
Dept: ENGLISH
Prerequisite: Earned a minimum grade of B in English 11-1 or 11-2 \& be available to meet with the instructor periodically throughout the semester.

In this web-based course, students will study the development of British literature chronologically. A variety of reading and writing strategies will be applied to the study of literature and nonfiction essays. Composition styles will be reviewed and polished at this level, and the projects will be completed using an interactive curriculum. Tragedies and British literature from the Anglo-Saxon period to the contemporary will be emphasized.

Credit: $\mathbf{0 . 5}$ or $\mathbf{1} \quad$ Weight: $\mathbf{5}$

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Year or Daily/Semester Dept: ENGLISH

This course will introduce students to the world of journalism. Six units of study include: History of Journalism, Writing for Publication, Photojournalism, Graphic Design/Layout, News Editing, and Web-based News. Students will also take on various roles in the operation of the school newspaper, the Pirates' Pearl. Ongoing analysis of print news, project presentations, and student portfolio maintenance are also critical course elements.

## JOURNALISM II

## Credit: $\mathbf{0 . 5}$ or 1

Weight: 5

## Grades: 9-10-11-12

Meets: Every other day/Year or Daily/Semester
Dept: ENGLISH
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- for one full elective credit in Journalism I
This course will extend students' exposure in the world of journalism. Six units of study include: Opinion/Editorial
Writing, Software/Process Seminar, Public Opinion, Media as Social Institutions, Race, Gender, and The Media, and Ethics and Journalism. Through roles in the operation of the school newspaper, the Pirates' Pearl, students will be expected to assume leadership responsibilities and mentor Journalism I students. Ongoing analysis of print news, project presentations, and student portfolio maintenance remain critical course elements.

SAT PREP CRITICAL READING \& WRITING
Credit: $\mathbf{0 . 5}$
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None
This is a language arts based course that builds knowledge, skills, and test-taking strategies required for the SAT examination. The units are based on recommendations from the College Board, developers of the SAT. Students in any grade (9-12) will benefit from an intensive study of vocabulary, reading strategies, and writing techniques. Even those students not planning on taking the SAT will improve their reading and writing skills.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: ENGLISH

This is a web-based language arts based course that builds knowledge, skills, and test-taking strategies required for the SAT examination. The units are based on recommendations from the College Board, developers of the SAT. Students in any grade (9-12) will benefit from an intensive study of vocabulary, reading strategies, and writing techniques. Even those students not planning on taking the SAT will improve their reading and writing skills.

## GIFTED

## GIFTED INDEPENDENT STUDY

Credit: $\mathbf{0 . 5}$
Weight: 6
Grades:11-12
Repeatable for Credit: No
Repeatable for Credit: No Dept: GIFTED
Prerequisite: Earned a minimum grade of C- in Gifted Seminar III and/or gifted support teacher recommendation. Must have an active GIEP

Students who have successfully completed Gifted Seminar III will design an independent study in which they pursue the investigation of a self-selected focus. Students design an independent study that emphasizes the development of higher level thinking skills of analysis, synthesis and evaluation and identify the content standards related to the independent study and product. A culminating project/product presentation is required. This independent study is graded on an A, B, C scale.

Weight: 6
Grades:11-12
Meets: Every other day/Semester
Repeatable for Credit: No
Dept: GIFTED
Prerequisite: Earned a minimum grade of C- in Gifted Seminar III and/or gifted support teacher recommendation. Must have an active GIEP

This is a web-based course; however, there will be scheduled mandatory face-to-face check-in meetings throughout the semester. Students who have successfully completed Gifted Seminar III will design an independent study in which they pursue the investigation of a self-selected focus. Students design an independent study that emphasizes the development of higher level thinking skills of analysis, synthesis and evaluation and identify the content standards related to the independent study and product. A culminating project/product presentation is required. This independent study is graded on an A, B, C scale.

Grades: 9-10
Meets: Every other day/Semester
Dept: GIFTED
Repeatable for Credit: No

Prerequisite: Must have an active GIEP
Students identified as intellectually gifted may participate in this course. The objective is to challenge the high intellectual and creative potential of each student. Students pursue ideas and attempt to solve problems in an interdisciplinary context through a philosophical framework. The development of the higher level thinking skills of analysis, synthesis and evaluation is achieved as students explore and create an independent project, research paper and presentation in an area of self-selected interest.

## GIFTED SEMINAR II

Credit: $\mathbf{0 . 5}$
Weight: 6

Grades: 9-10
Repeatable for Credit: No
Prerequisite: Must have an active GIEP

Meets: Every other day/Semester Dept: GIFTED

Students identified as intellectually gifted may participate in this course. The objective is to challenge the high intellectual and creative potential of each student. Students pursue ideas and attempt to solve ethical problems in an interdisciplinary context through a philosophical framework. The development of the higher level thinking skills of analysis, synthesis and evaluation are achieved as students explore and create and an independent project, research paper and presentation in an area of self-selected interest.

GIFTED SEMINAR III Credit: $0.5 \quad$ Weight: 6

Grades: 11-12
Repeatable for Credit: No

Meets: Every other day/Semester Dept: GIFTED

Prerequisite: Must have an active GIEP. Earned final grade of C- or better in Gifted Seminar I and/or II or taking an AP social studies course in senior year.

The purpose of this course is to develop the student's critical thinking and problem solving skills through developing media analysis and research skills. Students will explore current topics related to cultural diversity and conflict resolution in the national and international arenas. The methods used to explore these issues may include but are not limited to reading, discussion, debate and journal reflection. Students will develop, research, complete and present their Senior Graduation Project. Students in 11th grade in this course are expected to enroll in gifted independent study in their senior year and are encouraged to apply for AP Social Studies courses in their senior year.

## MATHEMATICS

Palisades offers three different programs of study: Honors Mathematics, Level 1, and Level 2. The programs vary by focusing on different styles of learning, depth of content, and utilizing different teaching methods.

The Honors Mathematics program is a rigorous study of the different areas of traditional mathematics. Placement in the honors program is based on teacher recommendation and continued evaluation of assessment scores. The core courses offered at the high school include Honors Algebra II, Honors Advanced Algebra/Trigonometry, AP Calculus, and AP Statistics.

The Level 1 and 2 Math programs are college preparatory sequences that include courses in Algebra I, Geometry, Algebra II, Advanced Algebra/Trigonometry, and additional electives. For more information visit, www.phschool.com/math.

To change to a higher level of mathematics - Level 2 up to Level 1 or Level 1 up to Honors - students must meet the following criteria:

- Average of $B+$ or higher in current course
- Earn a B or higher on both the midterm and final exams
- Take the final exam for the higher level course they are currently enrolled in and earn a score comparable to the average of the higher level course
Students are responsible for learning any topics from the higher level course that they did not have in the lower level courses.
The courses listed as electives in this curriculum guide serve two purposes. The courses will either permit the student to choose more advanced study in high levels of mathematics (after completing their chosen core curriculum), or they will provide students with options for completing their current course of studies.


## RECOMMENDED PALISADES HIGH SCHOOL MATH DEPARTMENT SEQUENCING

|  | LEVEL 2 | LEVEL 1 | HONORS |  |
| :--- | :--- | :--- | :--- | :--- |
| 8th | Pre-Algebra | Pre-Algebra | Algebra I | Geometry Honors |
| 9th | Algebra IA | Algebra IB | Algebra I-1 | Geometry I-1 <br> Algebra II-2 <br> Advanced Algebra/ <br> Trigonometry |
| 10th | Geometry 2 Igebra II-1 | Advanced Algebra/ <br> Trigonometry Honors |  |  |
| 11th | Algebra III | Advanced Algebra/ <br> Trigonometry | PreCalculus | AP Calculus <br> AP Computer <br> Science- A |
| 12th | Math Elective (1.0) | Math Elective (1.0) | Math Elective (1.0) | AP Statistics |

Math Electives Offered: Pre-Calculus, Intro to Statistics, Intro to Computer Science, Calculus, AP
Statistics, AP Calculus, or AP Computer Science A.
Other Non-Math Elective Offered: SAT Math
-Referring to the chart above: College Prep students must take four credits of math. Students are encouraged to take a fifth math course that will count as an elective credit.
-Honors students must take 4 credits of math, whereas Tech students must take a combined 7 credits of math and science level 1 and level 2 courses. If a student passes an Algebra I class but does not pass the Algebra I Keystone exam, he/she will be placed in an Algebra II class before Geometry. The department encourages students to earn extra credits in mathematics. Any student who elects to take a Pre-Calculus/Calculus course and a Statistics or AP Computer Science A course must take the Calculus course first or concurrently.

Grades: 10-11-12
Repeatable for Credit: No

Prerequisite: Earned a minimum grade of $\mathbf{C}$ - in Algebra II-1 or a minimum grade of $\mathbf{B}$ - in Algebra III if this course will count as a fourth math. If this course is used to satisfy an elective, no prerequisite is necessary.

This course is designed to review and expand upon the fundamentals of Algebra II such as linear, quadratics, polynomials functions, inequalities, and other functions. Students will learn the theory and the use of the basic circular and trigonometric functions. Additionally, the course will serve to introduce students to concepts preparatory to PreCalculus or Calculus.

## ADVANCED ALGEBRA/TRIGONOMETRY (HONORS) Credit: $1 \quad$ Weight: 7

Grades: 10
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of B- in Algebra II (Honors)

This course is designed to review and expand upon the fundamentals of Algebra II and to teach the theory and the use of the basic circular and trigonometric functions. Additionally, the course will serve to introduce students to concepts preparatory to Calculus. Students in this Honors section will engage in more individual investigations, more advanced applications and more advanced Trigonometric topics.

ADVANCED PLACEMENT CALCULUS

## Grades: 11-12

Repeatable for Credit: No

Credit: $\mathbf{1}$ Weight: $\mathbf{8}$
Meets: Daily/Semester or Every other day/Year Dept: MATHEMATICS

Prerequisite: Honors AATrig with a minimum grade of B- or PreCalculus with a grade of A- or higher or earned a minimum grade of C - in Calculus \& Approved AP Application

Advanced Placement Calculus is a college level course designed for accelerated students who wish to receive college credit prior to graduation. It is an especially good choice for those students who plan to concentrate in mathematics, science or engineering in college. It includes all topics fundamental to differential and integral calculus such as derivatives and their applications, differential equations and definite and indefinite integration and their applications to problem solving. It is expected that students who enroll in an AP course will take the AP Exam. Students who pass the AP Exam in Calculus may be eligible for college credit from many state colleges and universities. A test fee is required for the advanced placement exam.

## Grades: 10-11-12

Repeatable for Credit: No

Meets: Daily/Semester or Every other day/Year Dept: MATHEMATICS

Prerequisite: Level 1 students: Earn a minimum grade of C-in Computer Science I AND a B- in Algebra II. Honors level students: Can go directly into AP Computer Science A if the student earns a B-in Algebra II Honors. This course may only count as a math credit if it is the last course in a student's algebra sequence. However, students wishing to pursue a STEM major are strongly encouraged to continue through AP Calculus

The AP Computer Science A course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures) approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. It is expected that students who enroll in an AP course will take the AP Exam. Students who pass the AP Exam may be eligible for college credit. A test fee is required for the advanced placement exam.

## ADVANCED PLACEMENT STATISTICS

Credit: 1
Weight: 8

| Grades: 11-12 | Meets: Daily/Semester or Every other day/Year |
| :--- | :--- |
| Repeatable for Credit: No | Dept: MATHEMATICS |

Prerequisite: Earned a minimum grade of B- in AA/Trig or Intro to Statistics or earned a minimum grade of C- in PreCalculus. Approved AP Application required.

Advanced Placement Statistics is a college level course specifically designed for accelerated students who wish to receive college credit prior to graduation. The pace is rigorous and it is a good course choice for advanced students who plan to major in any field in college. Students will gain skills in the areas of exploring data (observing patterns and departures from patterns), planning a study (deciding what and how to measure a phenomenon), anticipating patterns (producing models using probability theory and simulation), and statistical inference (confirming models). It is expected that students who enroll in an AP course will take the AP Exam. Students who pass the AP Exam in Statistics may be eligible for college credit from many state colleges and universities. A test fee is required for the advanced placement exam.

## ALGEBRA I

Credit: 1
Weight: 6

Grades: 9
Repeatable for Credit: No
Prerequisite: Recommendation of PALMS Math Dept. \& performance on placement tests

Meets: Daily/Semester
Dept: MATHEMATICS

The Algebra I objectives are to develop a thorough understanding of the basic concepts and structure of the real number system and the applications of linear functions. Course content includes operations with real numbers, ways of displaying data, solving equations and inequalities, analyzing graphs of functions and relations, linear models, systems of equations in two variables, exponent rules, polynomials and factoring, and problem solving. By the end of this course students will take the Algebra 1 Keystone exam and need to score proficient or better as a graduation requirement. Students that do not score proficient or better will retake this exam in their Algebra 2 course.

## Grades: 9

Repeatable for Credit: No
Prerequisite: Recommendation of PALMS Math Dept. \& performance on placement tests
This is a web-based course. The Algebra I objectives are to develop a thorough understanding of the basic concepts and structure of the real number system and the applications of linear functions. Course content includes operations with real numbers, ways of displaying data, solving equations and inequalities, analyzing graphs of functions and relations, linear models, systems of equations in two variables, exponent rules, polynomials and factoring, and problem solving.

| ALGEBRA I-A Credit: 1 | Weight: $\mathbf{5}$ |  |
| :--- | :--- | :--- |
| Grades: 9  <br> Repeatable for Credit: No Meets: Daily/Semester <br> Prerequisite: Recommendation of PALMS Math Dept. \& performance on placement tests Dept: MATHEMATICS |  |  |
|  |  |  |
| The objectives are to develop a thorough understanding of the basic concepts and structure of the real number system |  |  |
| and the applications of linear models. Course content includes operations with real numbers, ways of displaying data, |  |  |
| solving equations and inequalities, linear models, and problem solving. This course goes into depth on each topic by |  |  |
| presenting various approaches and methods, and also includes real-life applications. |  |  |

ALGEBRA I-B
Credit: 1
Weight: 5
Grades: 9-10
Repeatable for Credit: No
Meets: Daily/Semester

Prerequisite: Earned a minimum grade of C- in Algebra I-A
The objectives are to develop a thorough understanding of the basic concepts and structure of the real number system and the applications of linear and exponential models. Course content includes operations with real numbers, analyzing graphs of functions and relations, linear models, systems of equations in two variables, polynomials, factoring and problem solving. This course goes into depth on each topic by presenting various approaches and methods, and also includes real-life applications. By the end of this course students will take the Algebra 1 Keystone exam and need to score proficient or better as a graduation requirement. Students that do not score proficient or better will retake this exam in their Algebra 2 course.

## ALGEBRA II HONORS

Credit: 1
Weight: 7
Grades: 9
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of B-in Honors Geometry @ PALMS
The objectives of Algebra II Honors are to broaden and strengthen the concepts developed in Algebra I Honors and Geometry Honors and to develop logical thinking. Course content includes a study of the real and complex number systems; using algebra and graphing techniques with linear, quadratic, exponential, polynomial, radical and other types of functions to solve problems; working in two or more variables; using equations, inequalities and matrix equations; linear programming; operations with rational and irrational numbers; logarithms; and an introduction to Probability and Statistics. Students in this Honors section will engage in more individual investigations, more advanced applications and more advanced Algebraic topics.

## Grades: 10-11

Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Algebra I-1

Meets: Daily/Semester
Dept: MATHEMATICS

The objectives of Algebra II-1 are to broaden and strengthen the concepts developed in Algebra I and to develop logical thinking in a problem solving approach. Course content includes a study of the real and complex number systems using algebra and graphing techniques with linear, quadratic, exponential, polynomial, radical and other types of functions to solve problems working in two or more variables, using equations, inequalities and matrix equations, linear programming, operations with rational and irrational numbers, and an introduction to Probability and Statistics. Students that did not score proficient or better on their first administration of the Algebra I Keystone exams will retake it by the end of this course.

## ALGEBRA II-2

Credit: 1
Weight: 5

Grades: 10-11
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Algebra I-B

Meets: Daily/Semester
Dept: MATHEMATICS

Course content includes a study of the real and complex number systems; using algebra and graphing techniques with linear, quadratic, exponential, polynomial, radical and other types of functions to solve problems; working in two or more variables; using equations, inequalities and matrix equations; linear programming; and an introduction to probability and statistics. This course goes into depth on each topic by presenting various approaches and methods, and also includes real-life applications. Students that did not score proficient or better on their first administration of the Algebra I Keystone exams will retake it by the end of this course.
ALGEBRA II-2 ONLINE Credit: $\mathbf{1}$ Weight: 5

Grades: 11
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Algebra I-B

Meets: Daily/Semester
Dept: MATHEMATICS

This is a web-based course. Content includes a study of the real and complex number systems; using algebra and graphing techniques with linear, quadratic, exponential, polynomial, radical and other types of functions to solve problems; working in two or more variables; using equations, inequalities and matrix equations; linear programming; and an introduction to probability and statistics. This course goes into depth on each topic by presenting various approaches and methods, and also includes real-life applications. Students that did not score proficient or better on their first administration of the Algebra I Keystone exams will retake it by the end of this course. Any students that pass Algebra II but do not score proficient or better on the Algebra I Keystone exam will be placed in Algebra III class.

ALGEBRA III
Grades: 11-12
Repeatable for Credit: No
Credit: 1
Weight: 5

Prerequisite: Earned a minimum grade of C- in Algebra II-2
Course content includes a study of the real and complex number systems; using algebra and graphing techniques with linear, quadratic, exponential, polynomial, radical and other types of functions to solve problems; working in two or more variables; using equations and expressions; operations with rational and irrational numbers; and an introduction to right triangle trigonometry. This course goes into depth on each topic by presenting various approaches and methods, and also includes real-life applications for understanding.

Prerequisite: Earned a minimum grade of C- PreCalculus or a minimum grade of A- in AATrig (with teacher recommendation)

This course is designed to develop knowledge of differential and integral calculus and applications of calculus. This is the ideal college preparation course for students who will need to take higher levels of mathematics in college. Course content includes elementary functions, the concept of limits, derivatives and their application, differential equations, and the definite integral and its application.

## GEOMETRY 1

Credit: 1
Weight: 6
Grades: 9-10
Meets: Daily/Semester
Repeatable for Credit: No
Dept: MATHEMATICS
Prerequisite: Earned a minimum grade of C- in Algebra I-1
The objective is to develop knowledge of geometry and its relationships to other mathematics systems. Students will develop and use the processes of inductive and deductive reasoning to affirm or deny conjectures. The course content includes the study of perpendicular and parallel lines, congruent polygons and similar polygons, right triangle properties, circles and related segments, lines, arcs and angles, construction and locus problems, coordinate geometry, and applications of geometry to angle measure, distance, area, volume problems and problem solving.

## GEOMETRY 2

Credit: 1
Weight: 5
Grades: 10
Meets: Daily/Semester
Repeatable for Credit: No
Dept: MATHEMATICS
Prerequisite: Earned a minimum grade of C- in Algebra I-B
The objective is to develop knowledge of geometry and its relationships to other mathematics systems. Students will develop and use the processes of inductive and deductive reasoning to affirm or deny conjectures. The course content includes the study of perpendicular and parallel lines, congruent polygons and similar polygons, right triangle properties, circles and related segments, lines, arcs and angles, construction and locus problems, coordinate geometry, and applications of geometry to angle measure, distance, area, volume problems and problem solving.

## INTRODUCTION TO STATISTICS

Credit: 1
Weight: 5

## Grades: 11-12

Repeatable for Credit: No

Meets: Daily/Semester
Dept: MATHEMATICS

Prerequisite: Earned a minimum grade of C- in AATrig or Algebra III *Level 1 Jrs. who have completed Algebra II and need one more math credit, may take Intro to Stats instead of AATrig.

Students will develop skills in statistical thinking, the assessment of credibility, and value of inferences made from data. Students will use statistical reasoning for the manipulation and integration of data. They will explore probability, single sample inferences, population definitions and comparisons, and linear regressions. Students will be exposed to a variety of statistical techniques, tools and resources.

## Grades: 11-12

Repeatable for Credit: No
Meets: Daily/Semester
Dept: MATHEMATICS

Prerequisite: Earned a minimum grade of C- in AATrig or Algebra III *Level 1 Jrs. who have completed Algebra II and need one more math credit, may take Intro to Stats instead of AATrig.

This is a web-based course in which students will develop skills in statistical thinking, the assessment of credibility, and value of inferences made from data. Students will use statistical reasoning for the manipulation and integration of data. They will explore probability, single sample inferences, population definitions and comparisons, and linear regressions. Students will be exposed to a variety of statistical techniques, tools and resources.

## PRECALCULUS

Credit: 1
Weight: 6

Grades: 11-12
Meets: Daily/Semester
Repeatable for Credit: No
Dept: MATHEMATICS

Prerequisite: Earned a minimum grade of C - in AATrig or minimum grade of A - in Algebra II-1 (with teacher recommendation)

This course is designed to review and expand upon the fundamentals of Algebra and Trigonometry. Additionally, the course will include conics, logarithms, more advanced trig identities, and introduce students to concepts from Calculus. Essential topics for understanding calculus (including but not limited to: sequences and series, limits, and the concept of a derivative) are covered and will give students a solid background for Calculus.

## SAT MATH

Credit: 0.5
Weight: 5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Algebra II

A review of the skills, concepts, and tactics to be successful on the Math section of the SAT. Students will learn the format, scoring guidelines, and specific strategies of the SAT. Diagnostic tests will be given throughout the course and at the completion of units, students will be assessed on their growth. *Students must purchase supplementary workbook (approx. \$15)

## MUSIC

## BAND/CHORUS

Credit: 1/0.5
Meets: Every other day/Semester
Dept: MATHEMATICS


## Grades: 9-10-11-12

Repeatable for Credit: Yes
Meets: Every other day/Year

Prerequisite: None

Students who want to participate in two large music ensembles may elect to take this combination class. Time scheduling for this class will be done within the music department. Students will need to meet all of the requirements for each class including attendance at dress rehearsals and final performances.

Grades: 9-10-11-12
Repeatable for Credit: Yes

Meets: Every other day/Year Dept: MUSIC

Prerequisite: Middle School Band or demonstration of performance ability commensurate with entrance level senior high music. Concert band class students are not required to participate in marching band.

The object of Concert Band is to provide ensemble instruction to students of woodwind, brass, and percussion instruments. Instruction in music reading, music phrasing and ensemble performance technique is provided while preparing programs for public performance. The High School Band prepares music of many styles for its educational value. The band will perform winter and spring concerts, and present other concerts outside the district when the opportunity arises. Students must meet minimum performance requirements as determined by the director. After school rehearsals are scheduled to prepare for the concert. Students in concert band are also required to perform in the stands with the marching band at one home football game.

Weight: 5

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: None

Meets: Every other day/Semester
Dept: MUSIC

Concert Choir is an elective for any student in grades 10-12 who loves to sing, and desires to improve their vocal skills while performing within a group. Piano skills are learned and practiced during the first half of each class period to aid in note-reading and ear-training. The second half of each class is devoted to the study of vocal music from various time periods and cultures, including Broadway and pop.
Attendance at winter and spring concerts is required, including additional after school rehearsals to prepare for concerts. A trip to NYC to attend a Broadway show is usually scheduled sometime during the year. A fundraiser was held to help offset the cost of the trip. This class may be taken for half of the school year if the student cannot fit the class for the entire school year into their schedule. 9th graders who cannot fit Freshman chorus are also welcome to join Concert Choir class. Students in fall semester class have the opportunity to also perform at Coffee House and in spring, to perform at Broadway cabaret.

## DIGITAL MUSIC

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: MUSIC

Digital Music is an introductory course intended to provide fundamental knowledge of aspects pertaining to digital music creation. This course will focus on the creation of musical composition, sequencing, and elements of theory through the use of electronic keyboards, MIDI and audio devices. This course will examine the technical aspects of digital music production including keyboard performance, sound recording, multi-track sequencing, composition, and film scoring. Instruction in computer-based music reading, notation, and composition is provided during an intensive study of digital music. The course will also examine preparation for Internet uploading, podcasting and creative music rights. Knowledge and participation in music is helpful, but not necessary.

## Grades: 9

Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: MUSIC

The objective of Freshman Chorus is to ease the transition from middle school to high school concert choir, and to provide cumulative development of singing techniques. The course includes individual and group experiences for learning correct breath control for singing, vowel and consonant articulation, music reading, and preparation of literature for a spring or winter concert. A wide variety of music from different time periods and cultures will be studied during rehearsals each day. The concert performance serves as the final project/exam for the course and concert attendance is required. A trip to see a Broadway show is usually scheduled sometime during the year. A fundraiser was held to help offset the cost of the trip. Piano skills are learned and practiced during a portion of the class to aid in note-reading and ear-training. Class members have the opportunity to perform in either Coffee House or Broadway Cabaret, in addition to the Winter/Spring concerts.

GUITAR CLASS I
Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Credit: 0.5
Weight: 5

This beginner level guitar class is for anyone interested in learning how to play the guitar. No experience is preferred! Students will learn the necessary skills required to tune and care for a guitar, read music and chord symbols, play major, minor and pentatonic scales, play melodies and harmonies in ensemble, and play chords by strumming in several keys. Popular music will be used to generate interest and encourage daily practice. Creativity will be encouraged through song-writing of a Blues song. Students are encouraged to bring their own guitars, but classroom guitars are available for school use if students do not have access to their own guitar.

## GUITAR CLASS II

## Credit: 0.5

Weight: 5
Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Guitar Class I @ PHS or private lessons
This level II guitar class will continue where the level one class ends, with the same goal of pursuing life-long learning through the development of a positive attitude about personal goals and potential. The class will review all skills learned in level I, then move on to more in-depth study of pentatonic and blues scales, PIMA picking, and more intricate strumming styles. Popular music using power chords and barre chords will be incorporated to pique student interest and encourage daily practice. Creativity will be encouraged by teaching the skill sets necessary to be able to improvise short melodies over a blues chord pattern. Technology will be put to use through online exercises, such as Music Theory.net, Guitar Guru, et al. Assessments will include written and playing exams, informal and formal observations, and small group performances.

Grades: 9-10-11-12
Repeatable for Credit: Yes

Meets: Every other day/Semester Dept: MUSIC

Prerequisite: Middle School Band or demonstration of performance ability commensurate with entrance level senior high music.

The objective of this course is to study and perform Jazz music of many styles. The course is designed for performers on: flute, saxophone, trumpet, trombone, guitar, piano, vibes, string bass (electric or acoustic), and drum set and accessory percussion. Members of the class must show proficiency on their instrument equal to Level 4 (medium) music. While the main objective of the course is to prepare for public performance, instruction in theory, jazz harmony, jazz styles and improvisation will be offered as it pertains to the music being studied in class. After school rehearsals are scheduled to prepare for the concert. Students in jazz band are required to perform as a member of the concert band and attend rehearsals for the ensemble. Students in concert band are also required to perform in the stands with the marching band at one home football game.

## MADRIGAL SINGERS

Credit: 1/0.5
Weight: 5

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: By audition - must have been in Freshman Chorus, Concert Choir, Band or Orchestra to be eligible.

A scheduled group of 16 to 24 singers will be chosen by audition to perform Renaissance and chamber music, Broadway show tunes, jazz and a cappella pop music. Each singer must display the ability to sing and maintain pitch without any accompaniment, pure vocal quality, musicianship, and must blend with the other vocal parts. The performing group will sing during the school year for various community functions and will represent the Palisades Vocal Music Department when traveling outside the district, including Honors Choir auditions. Some highlights of the year are Christkindlmarkt, Quakertown Choral Festival, and an A Cappella Festival.
Attendance at all Madrigal Singer and Concert Choir functions is required. Students are responsible for the purchase of concert attire. Singers (grade 9-11) may audition in spring for the following school year. The class will emphasize vocal production and performance skills in addition to singing in various languages and sight singing.

## MUSIC PACT (PIANO, APPRECIATION, COMPOSITION THEORY)

Credit: 1
Weight: 5

Grades: 9-10-11-12
Meets: Daily/Semester
Repeatable for Credit: No
Prerequisite: None

This course is highly recommended for anyone interested in pursuing a career in music, but is available to all students with a sincere interest in acquiring music-reading skills, basic piano skills, and an introduction to guitar. Practical knowledge in the use of music notation necessary for reading and writing music will be stressed. Course content will also include experiences in sight-singing, melody writing, harmonic structure, rhythmic and melodic dictation, study of historical styles and forms, conducting, transposition, piano study, and basic guitar. The music appreciation and theory aspects of this class make this course especially appealing to advanced music students.

Grades: 9-10-11-12
Repeatable for Credit: Yes
Prerequisite: None

Meets: Every other day/Semester Dept: MUSIC

The objective of Musical Theatre class is to learn about all aspects of musical theatre performance including acting technique, improvisation, stage management, singing, dancing, costumes, and make-up. The class will culminate in a final stage performance of a short play to a small community group. A field trip to a live performance, usually at DeSales University is included during the semester.

## STRINGS

Credit: 1/0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: Yes
Prerequisite: None

Meets: Every other day/Year Dept: MUSIC

This course is for students who play orchestral string instruments. Opportunities will be given for a small ensemble and a full orchestra with an emphasis on developing musical as well as technical skills. The string class uses a self-paced approach to learning music theory.

## SCIENCE

## Science course sequence:

| Grade <br> Level | Level 1 | Level 2 |
| :---: | :---: | :---: |
| 9 | *Students who have completed Algebra I may take <br> Chemistry I, sophomore students are given priority | Biology 2 |
| 10 | Chemistry I or Applied Ecological Sciences <br> (based on Keystone Exam results) <br> *Students who have completed prerequisites may <br> take Physics I or an AP science course, upperclassmen <br> are given priority | Applied Chemistry or Applied Ecological <br> Sciences <br> (based on Keystone Exam results) |
| 11 | Physics I | Applied Chemistry |
| 12 | Choice of Science | Applied Physics |

## ADVANCED PLACEMENT BIOLOGY

Credit: $\mathbf{1} \quad$ Weight: $\mathbf{8}$

Grades: 11-12
Repeatable for Credit: No
Repeablefor Credit No
Prerequisite: Earned a minimum grade of C-in Biology \& Chemistry I and Approved AP Application
In the Advanced Placement Biology course, students will continue their study of living systems by exploring the biochemistry of life, molecular biology, genetics, systems physiology, comparative biology of plants and animals, and selected topics in ecology. Students will participate in class and laboratory activities related to these topics and will develop a working knowledge of the material presented through a varied class format which emphasizes preparation of the student for the AP Exam for college credit in biology. Students are expected to take the AP exam. A test fee is required for the AP exam. Students enrolling in AP Biology are encouraged to take Anatomy \& Physiology prior to or at the same time as AP Biology. The themes and topics of these classes support each other well.

Grades: 11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of B in Chem I, Chem II, \& Algebra I (Algebra II \& AATrig are recommended) \& Approved AP Application

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students will attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. Lab experiments will be one of the main foci of the course, with a strong emphasis on physical manipulations, processes and procedures, observations and data manipulation, communication, group collaboration, and quantitative and qualitative data analysis. There is a strong emphasis in AP Chemistry on algebraic computations of chemical and mathematical equations. Students are expected to take the AP exam. A test fee is required for the Advanced Placement exam.

## ADVANCED PLACEMENT PHYSICS 1

Grades: 11-12
Credit: 1
Weight: 8

Meets: Daily/Semester Dept: SCIENCE
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of B in Algebra 1, Geometry, Algebra 2 and Advanced Algebra Trig; Approved AP Application

Advanced Placement Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and an introduction to simple circuits. 25 percent of the course will be based upon hands-on laboratory work with an emphasis on inquiry-based investigations. The course includes the use of basic trigonometric functions. No prior course work in physics is required. Students are expected to take the AP exam for which a test fee is required. Summer assignments are required for this course.

## ANATOMY/PHYSIOLOGY I

Credit: 1
Weight: 6

Grades: 11-12
Meets: Daily/Semester
Repeatable for Credit: No
Dept: SCIENCE
Prerequisite: Earned a minimum grade of C- in Biology

In Anatomy and Physiology, students will investigate the components of body systems. They will describe the functions of the systems so they may analyze diseases and their effects on the human body. Body systems will be studied on a cellular as well as macroscopic level. Lab investigations, dissections, microscope work, cooperative group projects and individual research assignments will be done in combination with text readings and use of technology to further develop an understanding of the human body and how it works. Students will produce laboratory investigations, illustrations, oral reports and other various projects in addition to traditional methods of assessment. This course is recommended for students considering a career in health related fields.

Grades: 11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C-in Anatomy \& Physiology I

Meets: Daily/Semester
Dept: SCIENCE

In Anatomy and Physiology II, students will continue their investigation of the components of body systems. The focus will be on the interaction of the structures of the human body and how they affect its function. This will include the analysis of diseases and their effects on the human body. Body systems will be studied on a cellular as well as macroscopic level. Lab investigations, dissections, microscope work, cooperative group projects and individual research assignments will be done in combination with text readings and the use of technology to further develop an understanding of the human body and how it works. Students will produce laboratory investigations, illustrations, oral reports and other various projects in addition to traditional methods of assessment. This course is recommended for students considering a career in health related fields and is a recommended course within the Medical Career Pathway.

## APPLIED CHEMISTRY

## Credit: $1 \quad$ Weight: 5

Grades: 10-11
Meets: Daily/Semester
Repeatable for Credit: No
Dept: SCIENCE
Prerequisite: None

Through the use of demonstrations, hands-on exploration, and self-discovery, this course allows students to learn chemistry concepts that require fewer higher-level math skills. Many practical applications are given to support the chemical concepts discussed in this course. This class is not for those students considering a science, medical or healthrelated career.

## APPLIED ECOLOGICAL SCIENCE

Credit: $1 \quad$ Weight: 5

Grades: 10-11
Meets: Daily/Semester
Repeatable for Credit: No
Dept: SCIENCE
Prerequisite: Minimum grade of C-in Biology 1 or 2 and Basic or Below Basic score on Keystone Exam

This course is required for those students who pass the Biology 1 or 2 course but do not demonstrate proficiency on the Biology Keystone Exam. It is not an elective option for students who are seeking additional elective credit. The course will provide targeted instruction to students in their individual areas of need relative to the biology eligible content, based on their Keystone Exam results. This course will also allow students to investigate the components of ecosystems, their interaction and interdependence. Ultimately, the course will prepare students to successfully retake the Keystone Exam. Students can take either Applied Ecological Science OR Natural \& Environmental Science.

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Daily/Semester
Dept: SCIENCE

Physics can be understandable for all students! The course provides a more practical approach to the study of physics. Only basic algebra skills are required for the successful completion of this course. Using a thematic approach, Applied Physics-Sports uses hands-on activities to study the physics of sports. Some topics of study may include straight-line motion, projectile motion, momentum, and energy conservation.

## APPLIED PHYSICS-TRANSPORTATION

Credit: 1
Weight: 5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: None

Physics can be understandable for all students! The course provides a more practical approach to the study of physics. Only basic algebra skills are required for the successful completion of this course. Using a thematic approach, Applied Physics-Transportation uses hands-on activities to study the physics of found in automobiles, planes, hot air balloons, backhoes, etc.-any conveyance that transports something. Some topics of study may include floating and sinking, straight-line motion, and Bernoulli's Principle.

## APPLIED PHYSICS ONLINE

## Credit: 1

Weight: 5
Grades: 10-11-12
Meets: Daily/Semester
Repeatable for Credit: No
Prerequisite: None

Physics can be understandable for all students! The course provides a more practical approach to the study of physics. Only basic algebra skills are required for the successful completion of this course. Some topics of study may include straight-line motion, projectile motion, momentum, and energy conservation.

BIOLOGY
Credit: 1
Weight: 6 (Level 1) 5 (Level 2)

Grades: 9
Repeatable for Credit: No
Prerequisite: None

Meets: Daily/Semester Dept: SCIENCE

The objective of biology is to develop a basic literacy in the underlying themes of life. The course will also prepare students for the Pennsylvania Keystone Biology exam. Eight units of study will be covered: basic biological principles, the chemical basis for life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, theory of evolution, and ecology. Students will investigate each unit using inquiry-based laboratory activities and group work along with traditional teaching methods. Upon completion of the course, students will take the Pennsylvania Keystone Biology exam.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Minimum grade of B - in Alg I is recommended, but not required.

Meets: Daily/Semester
Dept: SCIENCE

The objective of Chemistry I is to involve students in the investigations of chemical systems and the connections between science and other courses. The basic generalizations that will be stressed are the chemical bond, periodicity in the behavior of the chemical elements, the quantum mechanical model of the atom, molecular structure, the mechanics of chemical reactions, the gas laws concept of the mole, and science and technology. The course is designed so that students can gain an understanding of the applications of basic chemistry. Students with a stronger algebraic background will feel more comfortable with the mathematical applications of this class.

CHEMISTRY I BLENDED

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Earned a grade of B- in Algebra I is recommended, but not required.

This is a web-based course taught in a blended format. The objective of Chemistry I is to involve students in the investigations of chemical systems and the connections between science and other courses. The basic generalizations that will be stressed are the chemical bond, periodicity in the behavior of the chemical elements, the quantum mechanical model of the atom, molecular structure, the mechanics of chemical reactions, the gas laws concept of the mole, and science and technology. The course is designed so that students can gain an understanding of the applications of basic chemistry. Students with a stronger algebraic background will feel more comfortable with the mathematical applications of this class.

## CHEMISTRY II

Grades: 10-11-12
Credit: No
Prerequisite: Earned a minimum grade of C- in Chem I \& Alg II or equivalent

Meets: Daily/Semester Repeatable for Dept: SCIENCE

The objective of Chemistry II is to provide students with the opportunity to further their study of chemistry in a rigorous academic and project-oriented environment. Topics of study may include thermodynamics, biochemistry, equilibrium, analytical chemistry, electrochemistry, and basic instrumental analysis and environmental chemistry. This course has a strong emphasis in algebra and trigonometry as it applies to chemistry. Chemistry II will also serve as pre-AP Chemistry, helping to prepare students for the rigor and content of Advanced Placement Chemistry. Students who take Chemistry II are not required to continue on to take AP Chemistry, but it will be an option.

EARTH \& SPACE SCIENCE

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: None

Credit: $1 \quad$ Weight: 5

In Earth and Space Science, students will study topics in geology, chemistry, physics, oceanography, meteorology, and astronomy. Students will apply concepts learned in mathematics to calculations including density, speed of waves, percents, gravitation, and angles. Students will use their understanding to explain Earth's processes and make predictions. Students will produce cooperative projects, perform activities and laboratory investigations, interact with their text, technology and other references, as well as be assessed through traditional and alternative methods.

## Grades: 10-11-12

Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Biology

Meets: Daily/Semester
Dept: SCIENCE

In Natural and Environmental Science, students will describe the components of ecosystems, their interactions and interdependence. They will investigate man's effects on ecosystems and our use of energy. Global, regional, and local environmental problems will be studied. Students will become adept at the identification of representative members of the various natural populations in our area. During this course, students will produce cooperative projects, perform activities and laboratory investigations, interact with their text, technology, and other references, as well as be assessed through traditional and alternative methods. This course is not available to students who have already completed and passed either Natural \& Environmental Science Online or Applied Ecological Science.

NATURAL \& ENVIRONMENTAL SCIENCE ONLINE Credit: $1 \quad$ Weight: 5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Biology

Meets: Daily/Semester
Dept: SCIENCE

In Online Natural \& Environmental Science, students will study the components of ecosystems and how they function. They will investigate human impacts on the environment at local, regional and global levels. Topics include issues with water, air, land and energy. During this course, students will use various online resources and interactive activities to explore the topics. Students will participate in online discussions and complete individual projects. Students interested in this course should feel comfortable with the use of computers and be self-motivated. This course is not available to students who have already completed and passed either Natural \& Environmental Science or Applied Ecological Science.

## PHYSICS I

Credit: $1 \quad$ Weight: 6

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Alg II-1

The objective of Physics I is to help students discover the laws and principles that describe the interaction of matter and energy and to use these discoveries to predict future events in a variety of applications: kinematics, dynamics, momentum, energy, and work. The students will observe, measure, reason analytically, and perform mathematical calculations to successfully design and complete lab experiments, understand and explain concepts, apply concepts to "real life", and interpret and solve mathematical problems. Algebra and geometry concepts are necessary for the successful completion of Physics I. A working knowledge of three trigonometric relationships (sine, cosine, and tangent) is also necessary but will be taught in the course.

## PHYSICS II

Credit: 1
Weight: 6

Grades: 11-12
Repeatable for Credit: No
Meets: Daily/Semester Dept: SCIENCE
Prerequisite: Earned a minimum grade of C-in Physics I

Using a non-calculus approach, the student in Physics II will build upon the mechanics foundation laid in Physics I. Students will use algebra and trigonometry as mathematical tools to explore topics such as work \& energy, waves \& sound, light \& optics, thermodynamics, fluid mechanics, and electricity. Mathematical problem solving, laboratory experimentation, demonstrations, class discussion, and self-directed learning enable motivated students to get an indepth view into these areas of physics.

## SOCIAL STUDIES

## ADVANCED PLACEMENT EUROPEAN HISTORY

Credit: $1 \quad$ Weight: 8

Grades: 12
Meets: Every other day/Year
Repeatable for Credit: No Dept.: SOCIAL STUDIES

Prerequisite: Earned B or better in U.S. and the World III (level 1) or AP United States History \& Approved AP application

The AP European History course focuses on developing students' understanding of European history from approximately 1450 to the present. The course has students investigate the content of European history while developing the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. Students will be required to read selections from a variety of college level history books, as well as numerous primary and secondary source supplementary materials. Frequent essays will be written to prepare the student for the Advanced Placement European History examination, which the student is encouraged to take upon the conclusion of the course. Colleges may grant credit based upon a student's score. A test fee is required for the Advanced Placement exam.

## ADVANCED PLACEMENT US HISTORY

Credit: $1 \quad$ Weight: 8

Grades: 11-12
Meets: Every other day/Year
Dept.: SOCIAL STUDIES
Repeatable for Credit: No
Prerequisite: Earned a B or better in United States \& World II and in Modern World History (level 1) and Approved AP Application.

Advanced Placement U.S. History is designed to give students a grounding in U.S. History and in interpretive questions derived from the study of selected themes. Students will be required to read a comprehensive textbook and a collection of supplementary articles and/or primary sources. Students may be required to read one or more booklength studies of a particular era or event. Frequent essays will be written on topics being studied. Students are expected to take the Advanced Placement U.S History examination prepared by the College Board for college credit. Colleges may grant credit based upon a student's score A test fee is required for the Advanced Placement exam. If a student takes this course in their junior year it will replace the U.S. and the World III course.

## CULTURAL DIVERSITY

Credit: $1 \quad$ Weight: 6 (Level 1) 5 (Level 2)

Grades: 12
Repeatable for Credit: No
Prerequisite: None

Meets: Daily/Semester
Dept.: SOCIAL STUDIES

This course focuses on developing social awareness, respect for others, and knowledge of cultural diversity as students prepare to take their place in a pluralistic and complex world. This course will cover larger units focused on current world events such as Culture, Religion, Gender, and Race. Students will have opportunities to learn and practice skills that will enable them to confront the contemporary political and humanitarian challenges of the world in the 21st century. Cultural Diversity is for the student who requires some structure and guidance in completing the senior project. Between $30 \%$ and $60 \%$ of the course will be devoted to the completion of the senior project as per the academic level of the class.

Credit: $\mathbf{1} \quad$ Weight: $\mathbf{6}$

## Grades: 12

Meets: Daily/Semester
Repeatable for Credit: No Dept.: SOCIAL STUDIES
Prerequisite: Earned a minimum grade of C in U.S. \& World III-1 and in English 11-1, department approval, and mandatory available to meet with the instructor periodically throughout the semester.

In the online course students will focus on developing social awareness, respect for others, and knowledge of cultural diversity as students prepare to take their place in a pluralistic and complex world. This course will cover larger units focused on current world events such as Culture, Religion, Gender, and Race. Students will have opportunities to learn and practice skills that will enable them to confront the contemporary political and humanitarian challenges of the world in the 21st century. Cultural Diversity is for the student who requires some structure and guidance in completing the senior project. Between $20 \%$ and $40 \%$ of the course will be devoted to the completion of the senior project as per the academic level of the class.

## ECONOMICS

Credit: $1 \quad$ Weight: $\mathbf{5}$

Prerequisite: None

Economics is an elective designed to give a basic understanding of important concepts and understandings in this discipline for students in the 21st century. A primary objective of the teaching of economics is to prepare students to make rational decisions, as individuals and as members of society based on objective analysis, and on the values of the choice makers. Students who elect this course will have abundant opportunities to develop skills in the areas of evaluation, analysis, interpretation, problem solving, decision making, and interdisciplinary studies and activities. The course incorporates math skills into most units. Some of the concepts in the course are taught at a level of above average difficulty.

## ECONOMICS ONLINE

Credit: $\mathbf{1} \quad$ Weight: 5
Grades: 9-10-11-12
Meets: Daily/Semester
Repeatable for Credit: No
Dept.: SOCIAL STUDIES
Prerequisite: None
This is a web-based course designed to give a basic understanding of important concepts and understandings in this discipline for students in the 21st century. A primary objective of the teaching of economics is to prepare students to make rational decisions, as individuals and as members of society based on objective analysis, and on the values of the choice makers. Students who elect this course will have abundant opportunities to develop skills in the areas of evaluation, analysis, interpretation, problem solving, decision making, and interdisciplinary studies and activities. The course incorporates math skills into most units. Some of the concepts in the course are taught at a level of above average difficulty.

## Grades: 12

Repeatable for Credit: No
Prerequisite: Earned a B or better in Modern World History or US and the World III (level 1)

Meets: Daily/Semester
Dept.: SOCIAL STUDIES

This course may count as the Social Studies senior requirement. This course focuses on the principles, structures and decision-making processes of United States government at the national, state, and local levels. It demonstrates how government affects the lives of ordinary citizens and students and how they, in turn, can participate in the democratic process and influence government decision-making. Through a wide variety of readings, case studies, simulations and activities, students will have opportunities to analyze issues, make decisions, and take action both inside and outside the classroom. Students will also complete a ten-page research paper as part of their graduation requirements.

## GOVERNMENT \& DEVELOPMENT OF PUBLIC POLICY Credit: 1 Weight: 6 ONLINE

## Grades: 11-12

Repeatable for Credit: No
Prerequisite: None
Prerequisite: Earned a B- or better in Modern World History or US and the World III. Available to meet with instructor periodically throughout the semester.

This course counts as elective credit only. This web-based course focuses on the principles, structures and decision-making processes of United States government at the national, state, and local levels. It demonstrates how government affects the lives of ordinary citizens and students and how they, in turn, can participate in the democratic process and influence government decision-making. Through a wide variety of readings, case studies, simulations and activities, students will have opportunities to analyze issues, make decisions, and take action both inside and outside the classroom. Students will also complete a ten-page research paper as part of their graduation requirements.

## MODERN WORLD HISTORY

(Level 1) 5 (Level 2)
Grades: 10
Repeatable for Credit: No
Credit: $1 \quad$ Weight: 6

Prerequisite: None
Modern World History (1900-present) is designed to give the student an awareness of the developments in history and culture around the world in the 20th century and into the 21st century. Students will participate in class discussions, simulations and various other activities. They will complete readings, reports, critical thinking activities and projects to establish the historical background which will enable them to understand the cultural and social developments in the regions studied. To help develop historical thinking skills, students will interpret primary and secondary sources and utilize documents as they write analytical pieces.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept.: SOCIAL STUDIES

The course will focus on the unique place sports occupy in our society. Students will study their transformation from humble beginnings in America to the multi-billion-dollar creation they are today. In addition, special attention will be paid to the special role athletics have played in advancing ethnic minorities and women's equality in our society. Students will work with a variety of primary documents and secondary source materials in the course to raise interest level and maximize learning opportunities.

## U.S. \& THE WORLD II

Credit: 1
Weight: 6 (Level 1) 5 (Level 2)

## Grades: 9

Repeatable for Credit: No
Meets: Daily/Semester
Dept.: SOCIAL STUDIES
Prerequisite: None
The course will encompass United States history from 1824 through 1919. This time period includes: first time popular votes, Jacksonian democracy, Antebellum America, the Civil War, Reconstruction and the path to industrialization where the U.S. becomes a leading world power. Students will learn in a variety of ways as they focus on exciting time periods. A requirement of this class is the completion of a 3 to 5 -page research paper which will include focused instruction on thesis writing, outlining, and an introduction to in-text citations.

## U.S. \& THE WORLD III

Credit: 1
Weight: 6 (Level 1) 5 (Level 2)

Grades: 11
Repeatable for Credit: No

Prerequisite: Earned a minimum grade of B in Modern World History level 1 or level 2 and English 10-1 or 10-2 \& be available to meet with the instructor periodically throughout the semester.

The objective of U.S. \& The World III is to provide students with a basic understanding of the events, ideas, attitudes, and institutions which have led to the rise of the modern American nation. Students will focus on the period of the postwar era of the Roaring Twenties to the present. They will study political, social, and economic history, foreign policy, and the development of American society. In addition, the study of government as the foundation and an integral part of the American experience will be included. A requirement of this class is the completion of a 5 to 7 -page paper which will include focused instruction on annotated bibliographies and in-text citations.

## U.S. \& THE WORLD III ONLINE

Credit: $1 \quad$ Weight: 6 (Level 1) 5 (Level 2)

Grades: 11
Repeatable for Credit: No

Meets: Daily/Semester
Dept.: SOCIAL STUDIES

Prerequisite: Earned a minimum grade of B in Modern World History level 1 or level 2 and English 10-1 or 10-2 \& be available to meet with the instructor periodically throughout the semester.

In this web-based course, students will study the development of the modern American nation. Beginning with the postWorld War I era of the 1920s, students will study political, social and economic history, foreign policy, and the development of our current American society. In addition, the study of government as the foundation and an integral part of the American experience, will be included. A requirement of this class is the completion of a 5 to 7 -page paper which will include an annotated bibliography and in-text citations.

## TECHNICAL SCHOOL

Students interested in attending Upper Bucks Technical School must submit a completed application for the program of their choice. In the event the number of students applying for a particular program exceeds the school district quota for that program, a lottery will be held regardless of grade or situation. Students who did not secure a space through the lottery will be put on a waiting list for the next available slot.
All students enrolled in the technical program will be required to successfully complete the program each year. A final grade of " $F$ " in a shop will prohibit a student from returning to the same shop.

## AGRICULTURAL TECHNOLOGY \& LIFE SCIENCES

Credit: 1st yr: 2/2nd \& 3rd yr: 3 Weight: 1st yr: 5, 2nd \&

## 3rd yr: 6

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Under the guidance of professional staff, students will learn units of study related to animal science (nutrition, reproduction, genetics, health, marketing) and plant science (hydroponics, plant anatomy, taxonomy, genetics, reproduction), biotechnology, cell biology, molecular biology, research methodology and development.

## ANIMAL TECHNOLOGY Credit: 1st yr: 2/2nd \& 3rd yr: 3

Weight: 1st yr: 5, 2nd \& 3rd yr: 6

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL Pathway Program: Technical

This program introduces students to the exciting and dynamic animal care industry. By choosing a career in this area, students are stepping into a field that is growing and constantly changing. The program is an animal science course covering scientific principles in large and small animal care, breeding, selection, nutrition and management. Students will develop veterinary clinical skills such as assessing animal health and administering medications. Students participate in supervised occupational experiences where proper handling, health care and breed identification are learned in our active large and small animal facilities. Students will work as a team with other students to manage a daycare for dogs in our licensed kennels as well as raise a variety of animals including sheep, pigs, chinchillas, snakes, and ferrets. The student organization, FFA, provides students with the opportunity to develop leadership skills among peers and community. Certification available: Certified Pet Care Technician. Services provided: Dog Daycare, Dog Bathing.

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Students learn to perform many activities from assessing to repairing small dents to rebuilding the bodies of damaged vehicles, often using technology such as laser beams and digital assistance. Students are taught the types of materials used in filler compounds, the colors and chemical make-up of paints used to refinish, welding and cutting procedures, design and installation of trim, cost estimation and preparation for finish work. There is extensive training in metal, fiberglass and plastics repair, metal straightening, auto refinishing, spray painting and glass installation. This program has received national certification by NATEF (National Automotive Technicians Education Foundation). Certification available: Pennsylvania State Safety Inspection and Automotive Service Excellence (ASE). Articulation with: Lehigh Carbon Community College, Pennsylvania College of Technology, Automotive Training Center.

AUTOMOTIVE TECHNOLOGY Credit: 1st yr: 2/2nd \& 3rd yr: 3
Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Weight: 1st yr: 5, 2nd \& 3rd yr:
Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

This course emphasizes technical knowledge and repair of automobiles. Students learn to locate and diagnose malfunctions in vehicles using digital instruments and on-board computer systems, make repairs or adjustments and complete periodic inspections for preventive maintenance. Units of instruction include: braking, emissions, engine, electrical, suspension, alignment, fuel, computerized fuel injection and ignition systems. This program has earned national certification by NATEF. (National Automotive Technicians Education Foundation). Certification available: Pennsylvania State Safety and Emission Inspection, Automotive Service Excellence certifications (ASE). Articulation with: Northampton Area Community College, Lehigh Carbon Community College, Pennsylvania College of Technology, Automotive Training Center, University of Northwestern Ohio. Services provided: Brake work, tire work, suspension work, state pre-inspections, oil changes, emission system diagnosis, alignments.

BAKING \& PASTRY ARTS Credit: 1st yr: 2/2nd \& 3rd yr: 3
Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: $\mathbf{1 / 2}$ day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

The food industry is the nation's largest employer, creating a demand for thousands of skilled women and men every year. Students work with professional chefs to create mouth-watering desserts. Students learn to express their individual creativity through baking while building a solid foundation of essential baking methods with attention to detail and quality. The program operates its own bakery, bake shop, bistro, and catering services, which provide students with the opportunity to interact with customers. Articulation with: Johnson and Wales, Pennsylvania College of Technology. Services provided: LaBella Bistro and Bakery.

Grades: 12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

In this program, students will have the opportunity to earn and learn in a paid internship experience that they will gain high school credit for their work experience. Students are responsible for securing employment and transportation to and from the job site. Employment can be scheduled during or after the school day, as well as on weekends. Students will be required to meet with the coordinator 45 minutes per week and complete all required time logs, journals and assignments. This program will help them build a resume that will assist them with their college or career.

CARPENTRY PROGRAM Credit: 1st yr: 2/2nd \& 3rd yr: 3
Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Carpenters cut, fit and assemble wood and other materials for the construction of houses, buildings, decks and many other structures. Most carpenters are skilled in both rough and finish carpentry. Rough carpentry includes framing, boarding, sheathing and the installation of sub-flooring, partitions and studying. Finish carpentry includes the installation of finished flooring, stair work, siding, trim, wallboard and hardware. Students will learn to read blueprints, survey, frame and finish from foundation to roof. This program holds certification from the Home Builders' Association (HBA). Certifications available: OSHA Worker Standards certification, Residential Construction Academy, National Association of Home Builders. Articulation with: Pennsylvania College of Technology.

## CONSTRUCTION TECHNOLOGY PROGRAM Credit: 1st yr: 2/2nd \& 3rd yr: $3 \quad$ Weight: 1st yr: 5, 2nd \& 3rd yr:

## Grades: 10-11-12

Repeatable for Credit: N/A
Prerequisite: None

Meets: $\mathbf{1 / 2}$ day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Students learn the residential construction skills needed for a career in the home building and remodeling industry. Hands-on projects involve carpentry, electrical, plumbing, and masonry. Employment opportunities and apprenticeship programs in the field of construction are discussed. The Construction Technology program can lead to a Bachelor's Degree and a profitable career in Construction Management. This program holds certification from the Home Builders' Association (HBA). Certifications available: OSHA Construction Industry certification, National Association of Home Builders. Articulation with: Pennsylvania College of Technology, Northampton Area Community College (pending).

COSMETOLOGY PROGRAM Credit: 1st yr: 2/2nd \& 3rd yr: 3 Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: $\mathbf{1 / 2}$ day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

The exciting art and science of improving beauty through care and treatment of skin, hair and nails is called cosmetology. Cosmetologists shampoo, cut, style, lighten, tint and give permanent waves. They also may give manicures, scalp and facial treatments; provide makeup analysis and shape eyebrows. Students learn how to schedule appointments with clients, sanitize and disinfect equipment, and keep accurate records. These skills are practiced in our on-site beauty salon. Students may show their style by competing against other students in makeup, hair, and nail art competitions. Articulation with: Lehigh Carbon Community College. Students earn hours to qualify for the State Board of Cosmetology licensing exam. Services are available and those offered are similar to those provided in a salon. Appointments needed.

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

This course provides students with the essential skills needed for employment by emulating the food service industry through a school-based restaurant. In addition to skills in culinary arts, students are taught an in-depth safety program, leadership, career development, job seeking and job keeping techniques. The program is delivered through a sequence of performance based instruction. The course content is based on an occupational analysis of the food service industry and has been adjusted to reflect the job requirements of the local employers. Students will be able to explore the inner workings of successful restaurant operations through field trips. Certification available: Food Safety Manager Certification. Articulation with: Bucks County Community College, Johnson and Wales. Services provided: The Quiet Corner Café is a student operated restaurant which is open to the public.

DENTAL CAREERS Credit: 1st yr: 2/2nd \& 3rd yr: $\mathbf{3}$
Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

New technology has made dental care high-tech and exciting. In this course, students will gain the knowledge and skills necessary to assist in a dental practice. Students will have the opportunity to practice these skills and gain the experience of working hands-on with various dental professionals in our on-site dental clinic. This experience enhances their abilities and gives the students the qualifications needed to seek immediate employment. It can also be a basis for further education in dental hygiene, dental laboratory technology or dentistry. Students will have the opportunity to use their artistic talents to craft dental prosthetics as well as educate young children on the importance of dental hygiene. Certifications available: CPR, Pennsylvania Radiation Certification. Articulation with: Pennsylvania College of Technology. Services provided: Dental Clinic by appointment only.

## DIESEL TECHNOLOGY Credit: 1st yr: 2/2nd \& 3rd yr: $\mathbf{3}$

Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

The program emphasizes the skills to maintain all types of diesel powered equipment; repair and maintain related equipment including fire trucks, buses, ambulances, trucks, dozers, graders and exploration equipment; repair and maintain over-the-road trucks; work for dealerships and independent garages performing repairs or rebuilding; and work in related fields such as parts supply, warehousing, equipment sales or customer relations. The course includes hands-on training, introduction to heavy equipment technology, schematics, electrical/electronic theory, hydraulics, mathematics, interpersonal communications, system troubleshooting skills, computer skills, heavy equipment repair and maintenance. Certification available: Pennsylvania State Safety and Emissions Inspection, Automotive Service Excellence certification (ASE). Articulation with: Lehigh Carbon Community College, Pennsylvania College of Technology, Automotive Training Center. Services provided: air conditioning services, clutch repair, brakes, electrical diagnosis and repair, engine diagnostics.

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

This program incorporates theory and practical experience in generating and transmitting electricity. Students install and maintain communication, security and other electrical systems, using both AC and DC circuits. Students are taught residential wiring and learn how a home is wired from start to finish. In conjunction with these wiring techniques, the National Electrical Code is also taught. Electricity is used in commercial and industrial systems as well. These areas require such skills as blueprint reading, concepts of motors and generators, transformers and working with motor control circuits. Students will prepare for employment in modern commercial settings with motor control and programmable logic controller (PLC) training. Students will also go green and learn about alternative, solar and wind energy systems. This program holds certification from the Home Builders' Association (HBA). Certification available: OSHA Career Safe certification. Articulation with: Pennsylvania College of Technology.

GRAPHIC COMMUNICATIONS Credit: 1st yr: 2/2nd \& 3rd yr: 3
Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL Pathway Program: Technical

As the fourth largest employer in the United States, the graphic arts industry reproduces words, pictures, paintings, charts and forms onto paper. Students use desktop publishing software to digitally design various forms and custom displays as well as producing traditional methods of offset printing, plate making, image assembly and impositions. The course prepares students for the changing technology in the industry and will help prepare students for additional study at a college or university. Students operate sheet-fed printing presses, digital imaging equipment and various types of bindery machines. Students have the opportunity to earn national Printed certifications. Students will develop a professional portfolio to present to prospective employers and colleges. Articulation with: Bucks County Community College, Pennsylvania College of Technology. Services provided: Graphic design and production of displays and commercial printing for the UBCTS and the sending school districts.

HEATING, VAC, AIR CONDITIONING/PLUMBING
Credit: 1st yr: 2/2nd \& 3rd yr: 3
Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Under the guidance of professional staff, students will: Diagnose, service, troubleshoot and maintain HVAC and Refrigeration systems, Diagnose, service, and maintain Plumbing systems. Student will earn EPA certification and meet OSHA requirements.

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

The program is designed to introduce students to various health careers; teach students the necessary skills, knowledge and attitude for a job in the healthcare field, and to prepare students for further education in selected careers. Classroom and laboratory instruction are combined with field trips and on site work at partnering residential care settings and hospitals to expose students to a variety of health career choices. Students will use high-tech equipment such as SimMan, InvaCare Lifts, and the Schiller EKG machine with lung study capability. Certifications available: CPR, First Aid, EMT, Nurse Aide certification and prepare for Pharmacy Technician National Exam. Articulation with: Bucks County Community College, Pennsylvania College of Technology, Montgomery County Community College, GwyneddMercy College.

LAW ENFORCEMENT Credit: 1st yr: 2/2nd \& 3rd yr: 3
Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Our communities require trained personnel to respond to emergencies, save lives, prevent harm and protect property. This innovative and timely course provides instruction and training in comprehensive public safety. Many students pursue a career in law enforcement, emergency medical, fire or emergency management services. Related areas of employment include private security, industrial safety and government agencies. Students will investigate simulated crime scenes, participate in physical training on par with the State Police Academy, and learn about the force continuum, weapon safety and FireArms Training Simulator (FATS Machine). Certifications available: EMT, CPR, First Aid. Articulation with: Pennsylvania College of Technology, Bucks County Community College.

## MACHINING TECHNOLOGIES Credit: 1st yr: 2/2nd \& 3rd yr: 3

Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL Pathway Program: Technical

Almost every product that we use in our daily lives has been associated with a machining process of one type or another. Machine tool operators use power and hand tools to cut, drill, grind and form metal into a desired shape and size with an extremely high degree of accuracy. In this course, students learn to apply mathematical calculations, interpret engineering drawings and CAD/CAM data, use precision metrology equipment, plan machining processes, specify tooling and equipment requirements, use machining equipment (including manual and CNC equipment) and apply metallurgical processes. Machine tools include computers, lathes, drill presses, grinding and milling machines. This course will help develop a sound foundation for a career in engineering and manufacturing. Certification available: National Institute of MetalWorking Skills (NIMS). Articulation with: Pennsylvania College of Technology, Lehigh Carbon Community College, Northampton Area Community College.

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year
Dept: TECHNICAL SCHOOL
Pathway Program: Technical

The Mechatronics program offered at UBCTS provides a holistic approach to understanding the physics of automated work. Mechatronics focuses on machines that are controlled by programmable logic and powered by various forms of energy, such as electricity of pressurized fluids (pneumatic/hydraulic). Mechatronic workers design, troubleshoot, maintain and repair sophisticated automated equipment. Areas of study include: Lab Safety, Blueprint reading, electrical systems, electronics, robotics, mechanical systems, fluid power systems, programmable logic controllers and control system. Articulation with: Pennsylvania College of Technology, University of Northwestern Ohio.

SMALL ENGINE TECHNOLOGY Credit: 1st yr: 2/2nd \& 3rd yr: $3 \quad$ Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: 1/2 day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Students will learn to diagnose and repair small and medium sized engines. In doing so, they will work with new and old technologies, from gasoline to electric. Students will work on motorcycles, snow mobiles, tractors, boat motors, and much more.

## WELDING TECHNOLOGIES Credit: 1st yr: 2/2nd \& 3rd yr: 3

Weight: 1st yr: 5, 2nd \& 3rd yr:

Grades: 10-11-12
Repeatable for Credit: N/A
Prerequisite: None

Meets: $\mathbf{1 / 2}$ day every day/Year Dept: TECHNICAL SCHOOL
Pathway Program: Technical

Students become skilled in all types of welding that are common in our area as well as the use of metal cutting, forming equipment, flammable gases, hand and power tools. Students pursuing a welding career need to have excellent depth perception, fine-motor coordination, sound judgment, good eyesight, and high math aptitude. Students will fabricate individual and team projects for real world applications. They will participate in state-of-the-art virtual reality weld training and learn to melt, form, fuse, and cut metal to specifications. Certification is recommended and is a routine component of the course. This program is certified by the American Welding Society. Certifications available: American Welding Society entry level certification, Welding Code certification. Articulation with: Pennsylvania College of Technology, Lehigh Carbon Community College, Northampton Area Community College. Services provided: General welding repair and fabrication as deemed feasible.

## WELLNESS AND FITNESS

## DRIVER EDUCATION

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Credit: $\mathbf{0 . 5}$
Weight: 5

The primary goal of Driver Education is designed to help students become responsible drivers, well aware of - and better able to manage - the risks associated with driving. Driver Education also addresses such issues as resisting harmful peer and social pressures, exercising emotional control, and developing social responsibility. This course also provides students with an opportunity to learn the meaning of risk, how to avoid high-risk situations and how to minimize them if they're unavoidable. Throughout the text, students are given practical driving instruction, helpful tips and information, and risk-management strategies. Typical driving situations are described to engage students in evaluating and considering how they would manage risk. The goal of this course is to teach students about the factors that have an impact on driving so they will gain the confidence necessary to become safe responsible drivers.

## DRIVER EDUCATION (Online)

Credit: $\mathbf{0 . 5}$
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: WELLNESS \& FITNESS

The primary goal of Driver Education is designed to help students become responsible drivers, well aware of - and better able to manage - the risks associated with driving. Driver Education also addresses such issues as resisting harmful peer and social pressures, exercising emotional control, and developing social responsibility. This course also provides students with an opportunity to learn the meaning of risk, how to avoid high-risk situations and how to minimize them if they're unavoidable. Throughout the text, students are given practical driving instruction, helpful tips and information, and risk-management strategies. Typical driving situations are described to engage students in evaluating and considering how they would manage risk. The goal of this course is to teach students about the factors that have an impact on driving so they will gain the confidence necessary to become safe responsible drivers.

## GROUP FITNESS

Credit: $\mathbf{0 . 5} \quad$ Weight: $\mathbf{5}$

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: Physical Education I

Meets: Every other day/Semester
Dept: WELLNESS \& FITNESS

This course will focus on some of the following aerobic activities: walking/jogging, yoga, pilates, kickboxing, self-defense, and dance fitness. This course will also focus on current group fitness trends. We will continue to develop all areas of fitness through regular physical education participation, as well as through the above mentioned activities. Physical Education is required for a minimum of three semesters throughout a student's high school career.

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

Meets: Every other day/Semester
Dept: WELLNESS \& FITNESS

In this course, students will learn about the following topics: nutrition \& fitness; substance abuse; human sexuality; mental health; \& healthy relationships. This course will incorporate mini-lectures, group work, readings, discussions, presentations, reflections, and various projects into the learning process.

## HEALTH (Online)

Credit: $\mathbf{0 . 5}$
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: at least a B- in English 11-1 or AP English Lang.

Meets: Every other day/Semester
Dept: WELLNESS \& FITNESS

In this web-based course, students will learn about the following topics: nutrition \& fitness; alcohol, tobacco, \& drugs; human sexuality; mental health; \& healthy relationships. This course will incorporate readings, discussions, audio and video presentations, reflection, and various projects into the learning process. Students must complete a moodle training prior to the start of class.

## PHYSICAL EDUCATION I

Credit: $\mathbf{0 . 5}$
Weight: 5

Grades: 9
Repeatable for Credit: No
Prerequisite: None

## Meets: Every other day/Semester <br> Dept: WELLNESS \& FITNESS

Physical Education is essential for the healthy development of each student and our community as a whole. The wellbeing of our students will largely determine the quality of life they will have throughout their lifetime. To thrive in our ever-changing society, our students will acquire and use knowledge, skills, and habits necessary to promote individual, family and community wellness and personal fitness. Cardiovascular fitness and ways to assess your fitness will be stressed. This is a mandatory course that must precede all other Physical Education course options. This course will provide students with a focus on "Getting to Know" the fitness center. In addition, they will be participating in various activities, which will provide students with a "glimpse" into their future course options. Physical Education is required for a minimum of three semesters throughout a student's high school career.

## PHYSICAL EDUCATION II

Credit: 0.5
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Physical Education I

Meets: Every other day/Semester
Dept: WELLNESS \& FITNESS

This course is an extension of Physical Education I and will be comprehensive in its activities. The course will not focus on any one specialty; rather will address all content areas such as personal conditioning, aerobics, team sports, and lifetime fitness. Physical Education is required for a minimum of three semesters throughout a student's high school career.

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Physical Education I

Meets: Every other day/Semester Dept: WELLNESS \& FITNESS

Throughout this Online Physical Education course, students will be expected to complete all written assignments, activities, and projects as well as submit them properly. Students will be expected to perform the required physical activities. Students will also be expected to video tape certain activities to ensure that proper technique and form is being executed. It is the student's responsibility to work through the course at a self-directed pace. Physical Education is required for a minimum of three semesters throughout a student's high school career.
LIFETIME FITNESS Credit: $0.5 \quad$ Weight: 5

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: Physical Education I

Meets: Every other day/Semester Dept: WELLNESS \& FITNESS

This course will focus on individual or partner lifetime activities; (tennis, disc golf, paddleball, badminton, volleyball, walking courses, and fitness). Students will develop their knowledge and skill level, as well as transfer these skills into game play. We will practice proper warm-up and cool-down activities, however, most fitness will be gained through the activities. Physical Education is required for a minimum of three semesters throughout a student's high school career.

## PERSONAL CONDITIONING

Credit: 0.5
Weight: 5

Grades: 10-11-12
Repeatable for Credit: Yes
Prerequisite: Physical Education I

Meets: Every other day/Semester Dept: WELLNESS \& FITNESS

This course will focus on individualized personal conditioning programs using all school exercise facilities (fitness center, gymnasium, track, turf, and other athletic fields.) Students will be responsible for the design, implementation, monitoring, and evaluation of their workouts. Students will be working to meet their own personal fitness goals, as well as improve in all five components of fitness. Students will be introduced to and practice various training principles, as well as more advanced exercises and the latest developments in training. Physical Education is required for a minimum of three semesters throughout a student's high school career.

## TEAM SPORTS

Credit: 0.5
Weight: 5

Grades: 10-11-12
Repeatable for Credit: Yes
Meets: Every other day/Semester
Prerequisite: Physical Education I

This course will mostly focus on competitive team sports (soccer, basketball, football, volleyball, softball, hockey, etc.). There will be a heavy focus on developing skills, as well as transferring the skills into high-level game play. There will be a combination of teacher and student led instruction (player/coaches). We will practice proper warm-up and cool-down activities, however, most fitness will be gained through the activities. Physical Education is required for a minimum of three semesters throughout a student's high school career.

# WORLD LANGUAGE AND CULTURES 

## AP FRENCH, GERMAN or SPANISH LANGUAGE \& CULTURE Credit: 1 Weight: 8

Grades: 11-12
Repeatable for Credit: No
Prerequisite: at least a B- in World Language IV \& Approved AP Application

Meets: Every other Day/Semester Dept: WORLD LANGUAGE

The Advanced Placement language course is designed to develop and refine the skills that have been acquired in the four previous levels. The course utilizes a thematic approach to achieve functional language proficiency in listening, speaking, reading, and writing on an intermediate college level is the course goal. The development of vocabulary to support these four language skills is essential. Emphasis will be placed upon the student's ability to understand the spoken and written language, as well as the student's ability to accurately express ideas in speaking and writing. In addition to the textbooks, a variety of audio-visual materials and readings will be used. Compositions, listening activities, and supplementary readings will be required, as well as the completion of summer assignments. At the conclusion of the course, students are expected to take the Advanced Placement exam which may earn college credit. A test fee is required for the AP exam. This course fulfills an elective requirement for the Global Studies Pathway.

FRENCH I or GERMAN I or SPANISH I

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: None

In Level I, the student will be introduced to the four language skills, listening, speaking, reading, and writing and will develop cultural awareness. Participation in various activities which emphasize pronunciation, vocabulary, and structure will aid the student in producing language for effective communication.

## FRENCH II or GERMAN II or SPANISH II

Credit: 1
Weight: 5

Grades: 9-10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C-in Level I

In Level II, the student will further develop the four language skills and cultural awareness introduced in level I. Emphasis continues to be on pronunciation, vocabulary growth, and structure. The student will participate in activities to promote oral and written proficiency.

## FRENCH III or GERMAN III or SPANISH III

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned a minimum grade of C- in Level II

Meets: Daily/Semester
Dept: WORLD LANGUAGE

In Level III, the student will achieve increased proficiency in the four language skills and will continue to develop cultural awareness. The student will continue to expand the vocabulary base and will employ more complex structures to communicate effectively. If enrolled in the Global Studies Pathway, one level III course needs to be successfully completed.

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: Earned minimum grade of C - in Level III

Meets: Daily/Semester
Dept: WORLD LANGUAGE

In Level IV, the student will demonstrate increased comprehension of longer and more complex authentic sources. The student will expand and refine speaking and writing skills and will be able to summarize, discuss, and express opinions on a variety of themes. The student will also demonstrate a heightened awareness of culturally appropriate behavior. If enrolled in the Global Studies Pathway, one level IV course needs to be successfully completed.

## GLOBAL ISSUES SEMINAR

## Credit: $\mathbf{0 . 5}$ Weight: 6

Grades: 11-12
Repeatable for Credit: No

Meets: Every other day/semester Dept: WORLD LANGUAGE

Prerequisite: Completed two consecutive levels of the same language at PHS.
In the Global Issues Seminar students will build their global competency to investigate, evaluate, and participate as productive members of the global community. Not only will current issues be discussed, but the history that has shaped our current societies and their practices will be analyzed. This course is required for students in the Global Studies Pathway and is recommended for students considering a career with a global focus. As part of the course, students will take part in a multitude of learning opportunities. A variety of topics will be discussed and researched based upon current events and world issues. Other units of study will include: globalism, international organizations and human rights, the environment, world health, global migration patterns, and religion. This is the required capstone course for the Global Studies Pathway. Due to the limited number of seats, preference will be given to students in the Global Studies Pathway.

## LESS COMMONLY TAUGHT LANGUAGES: ARABIC Credit: 0.5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: >B- in a Level III World Language

This World Language elective course focuses on introducing students to Less Commonly Taught Languages (LCTLs) and their cultures. One of the objectives of the course is to equip students with the skills needed to learn LCTLs independently for future academic, personal or professional goals. From a linguistic perspective, students will explore the relationships among world languages by utilizing their knowledge from previously studied world languages (i.e. French, German and Spanish). Via computer assisted language software and videos, students will become acquainted with everyday conversational phrases in Arabic and a second independently explored LCTL of his/her choice. In addition, foundational activities will explore the concept of global citizenship and students' participation in the global community now and in the future. Students will use authentic resources to compare and contrast contemporary cultural practices and products. Students will access the cultures through the study of current events and issues. Culture will be explored through the lenses of film, art, music, literature and media. Note: Students will be expected to purchase their own headset with microphone for use in the course. This course (as well as upper level language study) fulfills an elective requirement of the Global Studies Pathway and enriches the Business Career Pathway.

LESS COMMONLY TAUGHT LANGUAGES: CHINESE Credit: 0.5

Grades: 10-11-12
Repeatable for Credit: No
Prerequisite: >B- in a Level III World Language

This World Language elective course focuses on introducing students to Less Commonly Taught Languages (LCTLs) and their cultures. One of the objectives of the course is to equip students with the skills needed to learn LCTLs independently for future academic, personal or professional goals. From a linguistic perspective, students will explore the relationships among world languages by utilizing their knowledge from previously studied world languages (i.e. French, German and Spanish). Via computer assisted language software and videos, students will become acquainted with everyday conversational phrases in Mandarin Chinese and a second independently explored LCTL of his/her choice. In addition, foundational activities will explore the concept of global citizenship and students' participation in the global community now and in the future. Students will use authentic resources to compare and contrast contemporary cultural practices and products. Students will access the cultures through the study of current events and issues. Culture will be explored through the lenses of film, art, music, literature and media. Note: Students will be expected to purchase their own headset with microphone for use in the course. This course (as well as upper level language study) fulfills an elective requirement of the Global Studies Pathway and enriches the Business Career Pathway.

## HOMEWORK

Homework is an important part of every student's instructional program. It is work that is planned by the teacher to be completed by the student outside of the regular classroom without the direct supervision of the teacher.

Homework assignments vary in nature. Some will be daily assignments to be completed in one evening. Other longterm assignments such as term papers, reports, and projects, will require efficient time scheduling and self-discipline. Not all homework is written. Reading, studying, and creating projects are also examples of homework assignments.

Students can expect to complete between five and six hours of homework per week in the following courses:

| AP Biology | AP European History | AP Statistics | Honors Math Courses |
| :--- | :--- | :--- | :--- |
| AP Calculus | AP French | AP Studio Art | Physics II |
| AP Chemistry | AP German | AP U.S. History |  |
| AP English Language | AP Physics | Calculus |  |
| AP English Literature | AP Spanish | Chemistry II |  |

Students can expect to complete between two and four hours of homework per week in the following courses:

| Accounting I, II | Design Concepts III | Math -all Math courses <br> except AP and Honors (see <br> above) |
| :--- | :--- | :--- |
| Anatomy \& Physiology | Drawing \& Painting II | Modern World History |
| Biology | English 9 | Physics |
| Chemistry I | English 10 | Talented \& Gifted |
| Design Concepts I | English 11 | U.S. and The World II |
| Design Concepts II | English 12 | World Languages Levels I-IV |

In all other courses students can expect to complete between one and two hours of homework per week. In addition to homework, many of the courses that are offered require students to do outside projects and research papers that will require extra hours of preparation to complete.

## UNIQUE LEARNING OPPORTUNITIES

Palisades High School offers students unique learning opportunities which extend beyond the traditional school setting and allow students to excel in a variety of areas. These opportunities include the following:

## Advanced Placement Courses

Often referred to as "AP" courses, Palisades High School offers 13 AP courses in 6 different departments. Students scoring a " 3 " or higher on the AP Exam receive consideration from their attending a university or college to receive college credit. These courses are taught by Palisades High School faculty during the regular school day and count toward the student's graduation requirements. Pre-requisites exist, as well as the completion of an AP application. Please refer to specific course offerings within this guide. Parents and students are encouraged to speak with their counselor for details. Students taking an AP Exam are responsible for the cost of the exam.

## Education Career Pathway

The Education Career Pathway is for students interested in a career in early childhood, elementary, middle or secondary education. This pathway explores the postsecondary education requirements needed of a teacher, counselor and teacher assistant and/or opportunities for a career in early childcare.

Students in the Education Career Pathway will complete coursework to prepare them for the postsecondary credits needed to earn and Associate or Bachelor's degree or pursue a career after graduation. Students develop skills in literacy, research, cultural awareness, and technology through coursework and field experience, including classroom observations and shadow experiences with educators to see the planning and preparation that supports educator and student relationships in the classroom. Job shadow opportunities will be available within the Palisades School District and also in other districts to provide a variety of classroom experiences.

## Engineering and Design Pathways

The purpose of the Engineering and Design Pathway is to prepare students for post-secondary education leading to a career in Engineering, Engineering Technology, and Art areas. The three pathways within this area will allow students to explore careers in the field while gaining essential skills and experiences that will prepare them for post-secondary education. Engineering and Art are diverse career clusters with jobs that require different levels of post-secondary education, whether it be an Associate's or Bachelor's degree. This program allows students to be exposed to the Engineering and/or Art fields while having an authentic and genuine interaction with local professionals.

Students will engage in the department course offerings while taking relevant coursework for each pathway. Students will interact with industry professionals while completing a 20 -hour field experience. Upon successful completion of the program, students will meet with our pathway advisory board consisting of business partners and educational professionals to discuss their experience.

## Business Career Pathways Program

The Business and Technology department recognizes the importance of introducing and connecting our students to a growing and evolving global workforce. The Business Career Pathway program prepares students for a postsecondary education and/or a career in business. Our two pathways (Marketing and Media, Accounting and Finance) will allow students to explore careers in the field while gaining the essential skills necessary to make them competitive in the job market both globally and locally.

The Business Career Pathway program revolves around four core concepts: extensive course work in the business department, advanced technical classwork opportunities for Advanced Placement or College Level coursework, real world student interests and networking experiences. Students start by learning the basics of finances, marketing,
communication media and entrepreneurship. Students will complete job shadows, obtain industry certifications, interact with industry professionals as well as complete a 20 -hour internship. Upon successful completion of the program, students will meet with our pathway advisory board consisting of business partners and educational professionals to discuss their experience.

## TO TAKE A BUSINESS COURSE, STUDENTS DO NOT HAVE TO BE ENROLLED IN BUSINESS CAREER PATHWAY

## Career Internship Program

Palisades High School offers an opportunity for ALL students to earn elective credits towards graduation by gaining valuable work experience that will assist them with their college or career. The work based experience will occur during school hours based upon a student's schedule (late arrival/early dismissal). The Upper Bucks County Technical School (UBCTS) will be responsible for evaluating the work site and student performance which includes student attendance. The student is responsible for their own transportation. UBCTS will comply with state and federal statutes regarding employment and insurance protection will be provided for the school and students.

Career Internship students will:
$\square$ Be responsible for securing employment prior to entering elective course
$\square$ Have work-based experience held at school approved worksite
$\square$ Obtain working papers prior to beginning of internship experience

- Complete monthly time logs, journals and assignments

Be legally employed a minimum of 15 hours a week during the school year

- Provide their own transportation to the worksite
$\square$ Meet with his/her coordinator 45 minutes per week


## TO TAKE A WORLD LANGUAGE COURSE, STUDENTS DO NOT HAVE TO BE ENROLLED IN THE GLOBAL STUDIES PATHWAY

## Global Studies Pathway

The World Language Department recognizes the importance of preparing and connecting our students to the global community. The Global Studies Pathway Program prepares students for a postsecondary education and/or a career in which proficiency in world language(s), knowledge of world cultures and an understanding of global issues are important.

The pathway affords students the opportunity to explore careers in the field, while gaining the essential skills and knowledge to prepare students for global citizenship and to participate in the global market. Furthermore, the Global Studies Pathway will partner with higher education institutions and multinational/international companies where students will gain experience with individuals working in global studies and related fields.

Through the pathway, students will improve their world language proficiency, compare and contrast the products and practices of cultures, analyze global issues and participate in the global community. Advanced Placement and college level courses will offer interdisciplinary coursework. In the elective courses, students will complete projects by incorporating an international or global focus. Furthermore, the pathway affords students the opportunity to pursue real-world interests and build professional networks.

Students will participate in a variety of external experiences to employ their language skills, explore careers, and interact with native speakers and professionals, while increasing their knowledge of global issues. Students will document their academic and personal growth as global citizens through reflection. Upon successful completion of the Global Studies Career Pathway Program, students will meet with our Pathway Board to discuss their learning and experiences.

## Medical Career Pathways Program

The intent of the Medical Career Pathway is to prepare students for post-secondary education leading to a career in the medical field. Students will be exposed to valuable experiences in the field and take coursework that will prepare them for post-secondary education and the job market beyond. The pathway utilizes partnerships with local medical providers to offer students experiences beyond the scope of a traditional high school curriculum.
The medical field is diverse with careers that require different levels of post-secondary education (2 years for some Associates Degrees to $12+$ years for certain Medical Board Certifications). One goal of the Medical Careers Pathway is to expose students to the varied opportunities in the field and to have students be able to have a general understanding of the requirements of each job.

## Dual Enrollment

College courses are offered at Palisades High School through Bucks County Community College. These classes are taught by at PHS by BCCC's faculty during the regular school day. Students may begin taking these courses in their junior year and must have a cumulative GPA of a 3.0 or better. College course work is awarded with a college transcript and high school elective credit toward the student's graduation requirement (a " C " or better must be earned to receive high school credit for the class). As cornerstones of the program, Introduction to Psychology is offered every fall semester, whereas Introduction to Sociology is offered every spring semester. Other courses are offered each semester dependent upon students' interests and enrollment. Parents are responsible for all tuition and costs associated with these courses, unless specified otherwise. Parents and students are encouraged to speak with their counselor for details.

## On-Line Courses

Students and parents are encouraged to explore the numerous on-line courses offered through colleges and universities. If a course of interest is found, students and parents must complete a request for credit application as well as provide documentation from the sponsoring university/college. Parents and students are encouraged to speak with their counselor.

## Palisades Cyber Academy

The Palisades Cyber Academy is a fully accredited subsidiary of Palisades School District. The courses and learning options are aligned with PA standards and are the same courses that have been reviewed and approved by the Palisades School Board of Directors. To continue our tradition and value for community education, our PCA online classes are completely instructed by Palisades' teachers who hold Pennsylvania teaching certification and are highly qualified in Pennsylvania as defined by the No Child Left Behind Act.

The Palisades School District provides all of the software and resources needed by students of PCA. Additionally, all full-time PCA cyber students receive a laptop that is owned and maintained by the district. Students will be able to successfully complete all course work online using school issued technology and email. All laptops are configured with an internet filter to protect students online.

Student schedules are flexible based on asynchronous design but teachers help support and guide students while ensuring consistent progress with weekly assignment check-ins and recorded attendance. Online courses run in accordance with the Palisades academic calendar.

## Scholar's Program

Each semester the top students in the senior class may apply to take college courses at Lehigh University, Lafayette College, Moravian College, or DeSales University. Interested students must complete an application and submit it to the counseling office by the specified deadlines. The participating universities and colleges make decisions independent of Palisades High School. Typically, tuition costs are waived by the sponsoring college. Parents and students are encouraged to speak with their counselor for details.

