About PA Cyber
Serving students in kindergarten through 12th grade, the Pennsylvania Cyber Charter School (PA Cyber) is one of the largest, most experienced, and most successful online public schools in the nation. PA Cyber’s online learning environments, personalized instructional methods, and choices of curricula connect Pennsylvania students and their families with state-certified and highly-qualified teachers, and rich academic content that is aligned to state standards. Founded in 2000, PA Cyber is headquartered in Midland (Beaver County) and maintains a network of support offices throughout the state. As a public school, PA Cyber is open for enrollment by any school-age child residing in the Commonwealth of Pennsylvania, and does not charge tuition to students or families.

Non-Discrimination Statement — Students; The Pennsylvania Cyber Charter School ("PA Cyber" or "the School") does not discriminate against protected students as defined by applicable federal, Pennsylvania state or local laws, including but not limited to the Pennsylvania Human Relations Act, Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments Act of 1972, and Section 504 of the Rehabilitation Act of 1973. PA Cyber is an equal opportunity educational institution and does not discriminate unlawfully in its educational programs, policies, activities or admissions practices on the basis of sex, race, color, national origin, religion, age, disability, genetic information or any other classification protected by applicable federal, state or local laws.

The Learning Never Stops

Our Vision
Inspire today’s learners to be tomorrow’s thinkers.

Our Mission
Empower all students and families to become active participants in their own learning and equip them with skills for the future. We achieve this through engaging content, delivered by innovative teaching in a culture of caring.
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The official version of the PA Cyber Course Catalog can be found on our PA Cyber website.
School Information

Accreditations

Middle States Association of Colleges and Schools
In the fall of 2011, The Pennsylvania Cyber Charter School was initially granted prestigious accreditation through the Middle States Association of Colleges and Schools. As an accredited member of the Middle States Association (MSA), the Pennsylvania Cyber Charter School joins an educational network that includes the full spectrum of private and public educational institutions in the United States and major colleges and universities in more than 85 countries around the world. During the 2017-2018 school year, PA Cyber undertook the arduous task of reaccreditation. PA Cyber is an accredited member of the Middle States Association until the fall of 2025.

Earning accreditation from MSA means PA Cyber meets Middle States’ 12 accepted standards for schools. These standards address the rigor of academic programs, the processing of academic records, business practices, and long term goals for continued improvement. In order to achieve accreditation, PA Cyber went through an extensive self-evaluation, supported by MSA’s professional staff.

Enrolling in a school that has received accreditation is important for a variety of reasons. It ensures that the school has met and will continue to meet strict professional standards to maintain accreditation. Middle States-accredited institutions achieve a level of educational quality and effectiveness that meets and goes well beyond the accountability requirements of governing bodies, including state and federal inspection, reporting, and monitoring. Accreditation is especially important when considering high school graduation and college admissions.

AdvancED
AdvancED is a trusted partner to more than 32,000 institutions in more than 70 countries serving over 20 million students. They are the world’s leader in providing improvement and accreditation services to education providers of all types in their pursuit of excellence in serving students. Accreditation is awarded to institutions that go through a rigorous internal and external review process demonstrating a willingness to be held accountable to the educational community for their commitment to high quality standards and student achievement. Accelerate Education and Lincoln Learning Solutions, two of PA Cyber’s curriculum providers, have achieved accreditation from AdvancED. AdvancED Accreditation is an internationally recognized sign of quality and accountability.

Accrediting Commission for Schools, Western Association of Schools and Colleges
Accelerate Education, one of PA Cyber’s curriculum providers, has earned accreditation from the Accrediting Commission for Schools, Western Association of Schools and Colleges (ACS WASC), a world-renowned accrediting association and one of the six regional accrediting agencies in the United States. The Accrediting Commission for Schools, WASC, extends its services to over 5,000 educational entities worldwide. Accreditation is integral to an organization’s perpetual cycle of assessment, planning, implementation, monitoring, and reassessment based upon student achievement. It fosters excellence in elementary, secondary, adult, and postsecondary education by encouraging school improvement through a process of continuing evaluation and to recognize, by accreditation, organizations that meet an acceptable level of quality in accordance with established criteria.

NCAA
The majority of PA Cyber’s core high school courses have been approved by the NCAA Eligibility Center. This organization establishes academic standards that student athletes must meet in order to compete in intercollegiate athletics. NCAA approved courses are designated in individual course descriptions.
Curriculum Providers

Accelerate Education

Accelerate Education is a leading provider of digital curriculum for students in Kindergarten through 12th grade. Accelerate Education’s suite of products increases educational opportunities available for today’s learners and promotes student achievement through a flexible, individualized learning experience.

Accelerate Education’s online curriculum has been carefully designed to meet state and national standards. This curriculum challenges students academically through rigorous content, while also inspiring students to be active participants in the learning process. This is achieved by engaging students in a variety of activities and assessments appropriate to the field of study, such as labs, journals, written assignments, discussion activities, group and individual projects, formative assessments, authentic assessments, objective tests, and written exams. Students are required to apply skills in increasingly complex ways as they progress through their courses.

With a robust catalog of more than 300 course titles and 30,000 discrete learning objects, Accelerate Education is able to support K-12 online learning needs for core subject areas, electives, and world languages at all levels – from Credit Recovery to Advanced Placement.

Lincoln Learning Solutions

Lincoln Learning Solutions provides students with an innovative and effective educational experience while utilizing state of the art technology, an interactive and engaging curriculum, and the guidance of highly qualified, licensed instructors. Employing a unique and consistent design model, each asynchronous Lincoln Learning Solutions course offers students a variety of content supplemented with various activities that include web investigations, audio recordings, interactive labs, PowerPoint presentations, videos, songs, and games. Aligned to state and national standards, lessons also contain differentiated instruction through the identification of key concepts, reinforcements, and enrichment activities. Varied and frequent assessments measure students’ knowledge and provide students with valuable feedback.

Lincoln Learning Solutions’ catalog of courses includes offerings beginning with early Kindergarten progressing through high school. These core courses include mathematics, English, science, and social studies, along with a variety of electives for various grade levels.

Lincoln Learning Solutions, one of the nation’s premier online curriculum providers, delivers student-friendly courses that offer a wide range of opportunities for academic mastery, investigation, and interaction.

Lincoln Park Performing Arts Center and ARTiFact: Content for Learning

A service of Lincoln Park Performing Arts Center, ARTiFact: Content for Learning creates, curates, and distributes digital educational resources to inspire, enhance, and extend learning in and through the creative and performing arts. ARTiFact's high school arts curriculum, ArtsAnywhere, provides high school students comprehensive offerings of courses in music, theater, dance, visual and media arts, career readiness, and STEAM. These courses feature expert instruction supported by engaging media, all guided by seasoned teachers who are also working artists.

ARTiFact: Content for Learning is also the developer of ArtsAlive!, an arts engagement curriculum for elementary and middle school students. ArtsAlive! is designed to raise awareness and promote understanding of the creative and performing arts, as well as to give learners the opportunity to create and perform their own works. All ARTiFact: Content for Learning courses are aligned to state and national standards.
Pacing

The Pennsylvania Cyber Charter School has a course pacing policy in place that will help our students reach their educational goals. In addition to providing accountability, pacing ensures that our students are attaining various Pennsylvania educational standards. PA Cyber is dedicated to providing an innovative, individualized education to our students, and we will continue to offer the highest level of service, support, and flexibility.

All GIEP, IEP, and 504 Plans will be honored.

Credit Recovery

To help high school students meet Pennsylvania’s graduation requirements, The Pennsylvania Cyber Charter School has implemented a credit recovery program for qualifying students. Our credit recovery courses provide students engaging content with supplemental activities. The credit recovery curriculum uses a consistent design model that incorporates differentiated instruction. Reinforcement and enrichment activities, along with practice assignments and problems are included throughout each course to help ensure students grasp the concepts needed to succeed.

Please contact your Academic Advisor for a complete list of available Credit Recovery courses and to see if you qualify for this service.

Instructional Delivery Modes

Virtual Classroom (VC)

The Pennsylvania Cyber Charter School offers students a unique instructional setting by conducting real-time classes with Pennsylvania-certified teachers through our Virtual Classroom (VC). Virtual classes are available to students in grades 2-12. The Virtual Classroom follows a traditional school year calendar, typically beginning in September and ending in June. Daily lessons include discussions, videos, and other activities. Homework will be assigned to reinforce the concepts presented in class. All Virtual Classroom courses are recorded so students can review sessions as needed.

Virtual Classroom students have the opportunity to interact with their teachers and classmates each day. All core subject area courses meet five days per week, while elective courses meeting days will vary. The scheduling of VC courses is flexible; however, student attendance is required. Together with your Academic Advisor, families can choose from a variety of class times in order to meet each student’s needs. Please check with your Academic Advisor for class meeting days and times for individual classes.

The Virtual Classroom offers students variety, innovative technology, teacher support and guidance, and the opportunity to succeed.

Blended Classroom (BC)

The Blended Classroom (BC) combines the best of the asynchronous setting with the addition of a live classroom experience one day per week. Blended Classroom courses are taught by Pennsylvania-certified teachers.

The Blended Classroom is an option for students in grades K-12. In grades K-4, students will be scheduled in a live class session once per week for all subjects. In grades 5-12, all core content area courses, including English language arts, mathematics, science, and social studies, will be offered individually in the Blended Classroom. These class sessions will include direct instruction, practice, discussion, videos, and other activities to help reinforce the content presented in the asynchronous material. Students will be required to maintain a steady pace in their coursework and attend their live class sessions as directed.

The Blended Classroom offers the flexibility of a self-paced course with live teacher support that will help all students be successful.
Asynchronous Classroom (AC)

The Asynchronous Classroom (AC) is available for certain elective courses. Asynchronous classes can be completed at any time and do not require a live component, providing students with the flexibility to complete schoolwork when it is convenient for them.

In this setting, students complete the work as posted in the course. Course components may include readings, videos, games, discussion board threads, and a variety of assessments. A Pennsylvania-certified teacher is available to assist students and to provide feedback as they complete course work.

State Testing

PSSA Exams

The Pennsylvania System of School Assessment, or PSSA, is a measure of student proficiency in English Language Arts, Mathematics, and Science according to the Pennsylvania Core and Academic Standards. PSSA results allow PA Cyber teachers and administrators to assess student learning and achievement each year, while providing a snapshot of each student's abilities. Students in grades 3-8 are required to take the English Language Arts and Mathematics PSSA exams. In grades 4 and 8, students will also be required to take the Science PSSA exam.

Tests are given in the spring, and Academic Advisors will make arrangements with each family to coordinate testing days, times, and locations.

Keystone Exams

The Keystone exams are end-of-course assessments designed to assess student proficiency in Algebra I, Biology, and English Literature. These exams are a component of Pennsylvania’s system of high school graduation requirements. As students complete courses associated with Keystone Exams, Academic Advisors will make testing arrangements and notify the student of the date, time, and location of each Keystone exam. PA Cyber will provide two testing windows for students: one in December and one in May.

Students who do not score proficient or advanced on any Keystone Exam may be enrolled in a Keystone Course. These courses are designed to help students understand, practice, and master the concepts tested, and to review test-taking strategies. After completing a Keystone course, the student will be scheduled to retest during the next Keystone testing window. For questions regarding Keystone Exams, please contact your Academic Advisor.
Student Support & Services

PA Cyber Regional Offices

The Pennsylvania Cyber Charter School is committed to providing our students and families with multiple opportunities to engage deeply in their learning and to access the programs and services they need to be successful. In addition to our robust online offerings, PA Cyber has established regional office locations throughout Pennsylvania that offer resources and support for students and families. Our regional offices offer family and student-centered activities and services designed to enrich, enhance, and extend your learning experience.

For a complete list of activities and services offered, please contact the Regional Representative of the nearest regional office location or visit the Family Link and Regional Office tile in Buzz.

Allentown Regional Office
974 Marcon Boulevard
Suite 200
Allentown, PA 18109

Erie Regional Office
1980 Edinboro Road, Suite B
Erie, PA 16509

Greensburg Regional Office
1040 Towne Square Drive
Greensburg, PA 15601

Harrisburg Regional Office
3721 Tecport Drive, Suite 102
Harrisburg, PA 17111

Philadelphia Regional Office
825 Baltimore Pike
Springfield, PA 19064

Pittsburgh - South Side Regional Office
The Brix at 26
2600 East Carson Street
Pittsburgh, PA 15203

Pittsburgh - Warrendale Regional Office
200 Pinewood Lane, Suite 100
Warrendale, PA 15086

State College Regional Office
Creekside Plaza
1700 South Atherton Street
State College, PA 16801

Wilkes-Barre Regional Office
40 East Northampton Street
Wilkes-Barre, PA 18701

Say hello to Archie!

Named in honor of the ancient Greek mathematician, scientist and innovator Archimedes, Archie is the official mascot of the Pennsylvania Cyber Charter School, and is a symbol of our school’s commitment to the pursuit of knowledge and non-stop learning. Throughout the year, Archie soars across Pennsylvania, hoping to meet as many PA Cyber students and families as possible. You can meet up with Archie at one of our Family Link or other PA Cyber community events. When you do, make sure to take a photo with him, and share it with us on our Facebook page!
Student Support

English Language Development (ELD) Program

Formerly known as English as a Second Language (ESL), PA Cyber’s English Language Development (ELD) program complies with Title 22, Chapter 4 of the Pennsylvania School Code. The Pennsylvania Department of Education requires every public school district and charter school to provide a Language Instruction Educational Program (LIEP) for each student who is identified as an English Learner (EL). Placement in an LIEP is guaranteed to all students who qualify. PA Cyber provides its ELs with targeted, direct ELD instruction designed to develop proficiency in English listening, speaking, reading, and writing skills.

The goal of PA Cyber’s ELD program is to facilitate the growth and development of social and academic language for multilingual learners. The ELD Department provides identification, placement, direct English language instruction, content classroom language support, state-required assessment, and monitoring for all identified ELs.

Additionally, the PA Cyber ELD Department provides the following for its enrolled EL students:

- Live English language instructional sessions with a Pennsylvania-certified ESL Program Specialist.
- Additional language support within the content classroom.
- Enhanced communication between staff and family in the family’s preferred language.
- Individual virtual tutoring sessions with the option of translation.
- Supplemental, asynchronous online lessons and benchmark assessment providing targeted instruction and support.
- Progress monitoring of English language development.
- Participation in the state required ACCESS for ELLs® assessment.

Gifted and Talented Program

Following the Pennsylvania Department of Education’s Chapter 16 regulations, the PA Cyber Gifted and Talented team identifies, evaluates, and provides qualified students with individualized educational programs for gifted students. The team works closely with PA Cyber families to maximize each student’s educational potential through the use of appropriate course and grade acceleration, delivery of optional online enrichment courses, and the provision of educational events and other supplemental programs.

The PA Cyber Gifted and Talented program affords the following for students that have been identified as gifted:

- Personalized approaches to understand and best accommodate each gifted student’s educational needs.
- Engaging educational opportunities and programs designed for advanced learners.
- Live online enrichment courses.
- Online discussion forums and interactive student competitions.

STAR Academic Incentive Program

Exclusive to PA Cyber, the STAR program is an academic incentive program that allows students not identified as gifted learners access to similar opportunities through online enrichment courses and other supplemental programs. STAR students must meet specific academic and attendance criteria.

School Counseling

The School Counseling Department at PA Cyber works with all students to ensure their potential is fully realized in regards to academic, personal, social, and career development in order to achieve success in and out of the classroom. Counselors offer support in a variety of ways including individual, group, and classroom guidance. Counselors prepare students for life after high school by advising and assisting in college, career, and post-secondary initiatives. School counselors collaborate with community agencies, staff members, parents, teachers and administrators to ensure that all students are empowered to create a quality life as they acquire knowledge, learn responsible behaviors, and prepare to become lifelong learners.
**Student Assistance Program**

The primary goal of the Commonwealth of Pennsylvania’s Student Assistant Program (SAP) is to help students overcome barriers so they may achieve, remain in school, and advance. School personnel will help identify barriers including but not limited to, alcohol, tobacco, other drugs, social problems, family issues, teen parenting, mental health, and transitional housing. Each referral is reviewed by members of the SAP team. Intervention and recommendations are put into action, and support and follow up are offered to students. While SAP is a mandatory statewide program in public schools, the structure and operation of the program at PA Cyber is a unique expression of an integrated model utilizing a tailored approach to case management. In accordance with the McKinney-Vento Act, SAP works with families experiencing barriers to fixed and adequate housing. SAP also sponsors Youth and Teen Leadership events for all PA Cyber students throughout the school year. For more information on PA Cyber’s Student Assistance Program please visit the SAP Course Card in Buzz.

SAP is a larger part of the PA Network for Student Assistance and is administered by the Pennsylvania Department of Education through the PA Department of Education’s Office for Safe Schools, the PA Department of Drug and Alcohol Programs - Division of Prevention and Intervention, and the PA Department of Human Services - Office of Mental Health and Substance Abuse Services/Children’s Bureau.

**Exact Path**

Edmentum’s Exact Path adaptive diagnostic assessments focus on understanding the needs of every K-8 student by creating a comprehensive profile of their individual strengths and needs above, on, or below their grade level. These reliable assessments support personalized learning by providing teachers and families a valid measure of growth upon each successive administration. Students in grades 3-8 will complete a language arts, a reading, and a math diagnostic assessment twice per year. Students in grades K-2 will complete these assessments three times per year. In addition to the diagnostic assessments, students will routinely be engaged in their own personalized Learning Path during and outside of classroom instruction in order to obtain their individual growth goals.

**Study Island**

PA Cyber utilizes the Study Island benchmark to assess student proficiency of Pennsylvania Core and Academic Standards. Students in grades 4 and 8 will complete the Science benchmark assessment two times a year. Students taking English 10, Biology, and Algebra I will also take the respective Study Island benchmark assessment twice per year. In addition to the benchmark, students will routinely be engaged in online interactive games in order to prepare for the PSSA and Keystone Exams. Ahead of state testing, students are highly encouraged to complete all topics in each subject area for their grade level. The variety of activities, including games, flashcards, and videos, reinforce the skills necessary for academic success.

**Homework Help**

PA Cyber offers its students a range of virtual homework tutoring opportunities. Students are encouraged to attend teacher’s office hours each week. If additional personalized support is necessary, PA Cyber offers on-demand and scheduled virtual tutoring support from FEV Tutor and TutaPoint.

**Title I Coaching**

Title I coaches provide a bridge for K-12 students who experience gaps in their reading and math development. Students in the program will be assessed by the Title I team which includes certified specialists in the fields of reading and math. The coach and Title I team will develop an individualized intervention plan that will meet the needs of each student, while helping them to realize success. Student progress is measured to ensure the effectiveness of the instruction they receive.
IMPACT Tutoring

IMPACT is a peer tutoring program in which a high achieving high school student in grades 10, 11, or 12 tutors an elementary or middle school student to prepare for the yearly PSSA exams. Each high school tutor works independently with a student in a private online classroom to increase academic and critical thinking skills. Each IMPACT tutoring session is supervised by a certified teacher in that subject area. Throughout the program, student progress is tracked and student strengths or areas of concern are shared with each student’s family. IMPACT meets once a week online for ten weeks before the PSSA testing window. Peer tutoring not only increases academic performance and testing scores, but also helps increase student self-esteem and social interaction.

IMPACT tutoring sessions are available for students in grades 3, 4, 5, 6, 7, and 8 in English language arts and mathematics, while tutoring sessions for science are available to students in grades 4 and 8.

PA Cyber Library

The PA Cyber Library was created for students, parents, and staff for use in and out of the classroom. Resources such as e-books, read-alouds, and audiobooks are available through Sora. This collection of digital content is accessible from multiple devices. The PA Cyber Library includes access to Project Gutenberg and Khan Academy along with parent resources, physical books, and the PA Power Library, a database of library catalogs provided for all Pennsylvania residents.

icurio

icurio is an educational search engine that brings the best of the internet to K-12 students, connecting them to more than 400,000 hand-selected, educator-approved sites. icurio search results are organized by grade level bands and detail the readability of each web resource, so families can be confident that students are accessing websites appropriate for their grade level. icurio resources are personalized to each learner’s interests and are ideal for every student’s learning needs.

Reading Rewards Program

Developing a routine and fostering a love for reading is the key to your child’s success. Reading impacts your child’s language, literacy, and overall brain development. PA Cyber’s Reading Rewards Program encourages reading for enjoyment at all grade levels. Families can set a personal goal to read 20 minutes each day, read a set number of pages, or read a certain number of books each month. Students who meet their personal reading goals receive incentive rewards.
Student Services and Activities

Family Link — Connect. Share. Support

PA Cyber’s Family Link is an outreach program that offers families the chance to connect through field trips and local parent-planned activities. These events broaden and enrich the cyber school experience by creating an important social network for PA Cyber students and their families. Students enjoy opportunities to spend time with classmates who share their interests, and parents are able to talk and share ideas with other parents who respect and understand their educational choice. Family Link members are also given opt-in access to a secure, online directory of other members’ names, PA Cyber email addresses, grade levels, and geographic regions. This unique directory helps families connect and communicate with others to foster support, enhance learning, and create lasting friendships.

ArtReach

The creative and performing arts are essential to a dynamic and fulfilling education. Study after study shows the arts promote academic achievement and heighten cultural literacy, and also equip students with the skills so vital for success in the 21st century: critical thinking, creative problem solving, effective communication, and the ability to collaborate with others.

PA Cyber has teamed up with Lincoln Park Performing Arts Center to create ArtReach. ArtReach offers PA Cyber students access to in-person and virtual classes, workshops, virtual experiences, and performance opportunities. Taught by experienced and highly skilled professional artists, ArtReach allows students to broaden and deepen their knowledge of diverse art forms, cultivate their artistic talents, and socialize and collaborate with other PA Cyber students.

ArtReach classes are offered in 12-week class sessions during the fall and spring semesters at each of PA Cyber’s regional offices. For students who do not live near a PA Cyber regional office, or can’t get to a regional office in between academic classes, PA Cyber also offers Virtual ArtReach courses taught in the online classroom by Lincoln Park Performing Arts Center’s teaching artists. Virtual ArtReach classes are also offered in 12-week sessions during the fall and spring semesters.

National Junior Honor Society

“More than just an honor roll” is the motto of the National Junior Honor Society. NJHS was established in 1929 to recognize outstanding middle school students for their character, merit, leadership, service, and citizenship. With over one million students participating in national honor societies across the nation, the PA Cyber chapter of the National Junior Honor Society joined the national organization in 2014. The PA Cyber chapter invites students in grades 6-9 who demonstrate the five core principles. Eligible students must maintain As and Bs in all classes, demonstrate leadership and citizenship within their school, community, and other extracurricular activities, as well as complete a set number of hours of community service. Members of the PA Cyber chapter are also required to attend monthly online meetings, submit monthly assignments, and complete a predetermined end-of-year service project. New candidates will attend a mandatory formal induction ceremony as required by NJHS guidelines. Ceremonies are held each year at locations in the western, central, and eastern regions of the Commonwealth. The PA Cyber chapter of the National Junior Honor Society welcomes you to become part of a once in a lifetime experience.
National Honor Society

The National Honor Society (NHS) is a national organization that consists of many chapters across the United States. The National Honor Society was founded in 1921 by the National Association of Secondary School Principals by Principal Edward S. Rynearson of Fifth Avenue High School in Pittsburgh, Pennsylvania. National Honor Society chapters are commonly active in community service activities both in the community and at the school. The PA Cyber NHS Chapter is open to students in grades 10-12 with a minimum grade point average of 3.5 or higher. Selection is based on four criteria: scholarship, leadership, service, and character. NHS requires service to the community, school, or other organizations. Members of the PA Cyber chapter are also required to attend monthly online meetings, submit monthly assignments, and complete a predetermined end-of-year service project. These projects meet the required monthly service projects. New candidates will attend a mandatory formal induction ceremony, as required by NHS guidelines. Ceremonies are held each year at locations in the western, central, and eastern regions of the Commonwealth.

Students Helping Students (SHS) Peer Mentoring

The mission of Students Helping Students is to help PA Cyber students improve interpersonal communication skills while increasing peer-to-peer interaction between students. SHS seeks to empower students personally and academically through positive peer involvement and extra in-school support. Students in grades 7-9 are eligible to be considered as mentors while students in grades 5-8 are eligible to be considered as mentees.
PA Cyber Clubs and Workshops

One of the easiest and quickest ways to meet other PA Cyber students is to join a club or workshop. At PA Cyber, these activities meet online through our online classroom, and stay connected by discussions and chats with fellow students in Buzz. Each club elects officers, chooses club topics to discuss, and may even help organize club outings. No matter your interest, there is a club or workshop for you! Get involved, meet others, expand your horizons, and have fun!

Elementary School Clubs and Workshops (K-5)
- All Aboard Gamers Club (2-5)
- Amazing Animal Adventures (K-2)
- Archie’s Explorers Club (K-5)
- Around the World with Foreign Languages Club (K-5)
- Bible Adventurers (3-5)
- Bookworm Buddies Book Club (3-5)
- Coding K-2 (K-2)
- Coding 3-5 (3-5)
- Hands on Science Club (K-2)
- Hands on Science Club (3-5)
- Kids Kitchen Creations (K-2)
- Nature Club (K-5)
- Ready, Set, Go Club (K-2)
- Ready, Set, Go Club (3-5)
- Show and Tell Club (K-2)

Middle School Clubs and Workshops (6-8)
- Adventures in Reading Club
- American Sign Language Club
- Art Club
- Connect Jr. Bible Club
- Cooking Workshop
- Crochet Crazy Workshop
- DIY Agriculture Workshop
- Esports Club
- French Club
- German Club
- Global Education Club
- Good Eats Club
- Introduction to 3D Printing (AC)
- Italian Club
- It’s a String Thing Workshop
- Leaders of Tomorrow
- Outdoors Club
- Science Investigators Club
- Spanish Club

High School Clubs and Workshops
- American Sign Language Club
- Art Club
- Book of the Month Club
- Chess Club
- Circuits and Code Workshop
- Citizen Science Workshop
- Coding Club
- Cooking Workshop
- Connect Bible Club
- Crochet Crazy Workshop
- Debate Club
- DECA
- Digital Fabrication: 3D Printing Workshop
- Digital Fabrication: Laser Cutting Workshop
- Dungeons & Dragons Club
- Ear Buds Podcast Club
- Environmental Club
- Equestrian Club
- Esports Club
- Express Your Voice Workshop
- French Club
- German Club
- Global Education Club
- GSA
- History Club
- Introduction to Python Programming (AC)
- Italian Club
- Let’s Go Labs Workshop
- Literary Journal Club
- Maker Club
- Making Macrame Workshop
- Model United Nations Club
- Newspaper Club
- Origami Workshop
- Outdoors Club
- Photography Club
- Science Club
- Spanish Club
- Sports Talk Club
- Student Council
- The Grub Hub Cooking Club
- Youth Ambassador Club
Kindergarten

**Language Arts K**

Language Arts K sets the stage for future success in reading and writing. Students will come to understand the basic concepts of print. They begin the year by practicing handwriting strokes and transition into writing all uppercase and lowercase letters of the alphabet. This course emphasizes phonics as the foundation to being able to read, and teaches students letters, letter sounds, and word families. Students will read and be exposed to a variety of fiction and nonfiction literature, and will practice identifying characters, main idea, plot, and setting. Each week, students will learn new sight words and master reading and comprehension strategies to grow as readers. This course features engaging videos, stories, songs, interactive games and activities.

**Mathematics K**

Mathematics K is an interactive class encouraging students to have fun with numbers and to find early success with mathematical concepts. In the first half of the year, students will learn foundational math facts. They will count to 12, compare sizes, use ordinal numbers, put items in order, use a number line, take basic measurements, and tell time on digital and analog clocks. In the second half of the year, students will practice counting and writing numbers to 50. Additional topics of exploration include comparing and sorting objects, basic geometric shapes, and coins and money. Students will have many opportunities to practice these mathematical concepts by engaging in interactive online games and activities and by completing hands-on offline activities.

**Science K**

In Science K, students will use their senses to explore the world. The course is centered around the four seasons and students experience nature walks, gardening, and imitative games to explore various concepts. Stories, videos, songs, and games will help young learners learn more about the world around them. Topics in this course include autumn weather and the changes trees go through in the fall, listening to and observing animals and nature, seeds and plants, animals and weather changes, the properties of matter, severe weather, and spring flowers.

**Social Studies K**

Social Studies K introduces students to their place in the community and the responsibilities of being a member of society. They will also learn about everyday heroes, the importance of rules, getting along with others, defining emotions, and life in the past. Students will also learn about their home state of Pennsylvania. Students will learn about United States symbols such as the American flag and the eagle. From there students learn about holidays and celebrations in the United States and around the world. In the second half of the year, students are introduced to map reading skills and will be taught to read maps of the United States and the world. Students will learn about needs and wants and buying locally. The course closes with a study of character education, focusing on topics such as loyalty, honesty, kindness, service, and forgiveness.

**Delivery Mode**

BC
First Grade

Language Arts 1
Language Arts 1 emphasizes learning for students to become independent readers and developing writers. Students will identify and write all letters and produce letter sounds and frequently used phonograms. Students will master weekly sight words and develop a broader vocabulary. Interactive reading and comprehension strategies are incorporated to teach and encourage students to grow as readers and thinkers. Writing lessons teach punctuation and important foundational writing skills, including a focus on handwriting, spelling, and basic grammatical concepts. The course features a variety of literature types, engaging videos, songs, and interactive online activities.

Mathematics 1
Mathematics 1 is an engaging course where students will build fluency with basic math facts. They will learn to count to 100, practice basic addition and subtraction facts, and add double-digit numbers. Students will be introduced to new concepts such as word problems, Venn diagrams, and basic geometric concepts. There will be emphasis on practical skills such as reading thermometers, looking at maps, and understanding the value of coins. Students will have multiple opportunities to practice new skills and knowledge through integrated online practice problems. As students master these concepts, they will begin counting by twos, fives, and tens. They will learn both vertical addition and subtraction. Students will be introduced to multiplication, division, and study even and odd numbers. Mathematics 1 is an engaging hands on course with online videos, activities, and physical manipulatives used to practice new skills and concepts.

Science 1
Budding scientists are encouraged to explore and discover their world in Science 1. Students will observe their surroundings through observations of the natural world and learn the concept of scientific inquiry. Major topics covered in Science 1 include the moon, seasons, weather, and clouds. Students will also explore animals and their basic needs and how they adapt to their environment. A study of leaves, trees, and pond and forest life will provide opportunities for exploration. The course will engage students with videos, songs, and online activities.

Social Studies 1
In Social Studies 1, students begin to explore fundamentals of social studies including map skills, cardinal directions, and oral histories and narratives. Students practice these skills by reading maps of the U.S. and the globe, making their own maps, and retelling stories and narratives as well as writing their own observations. In addition, students will be introduced to important figures from American History and learn about their role in their community. Social Studies 1 is an engaging class that includes videos, projects, and a variety of reading and writing activities.
Second Grade

Language Arts 2

In second grade, students become strong readers and writers by building on the foundations of first grade. Students will continue to spell and develop their vocabulary, begin to read more fluently, apply new grammar concepts, and participate in handwriting and writing activities through thematic units. Weekly themes include engaging topics such as Family Fun, Farm Visit, Cooking Fun, Getting Creative, My Community, To the Moon, Travel Stories, Fun with Friends, and Animal Babies. Students will continue to master weekly sight words and reading comprehension strategies while they grow as readers.

Mathematics 2

Mathematics 2 expands on the concepts introduced in first grade. Students will build fluency with basic math facts and add and subtract within 100 to solve world problems using strategic methods. Students will also manipulate numbers to 1000 using knowledge of hundreds, tens, and ones. They will use place value to add and subtract within 1000 and to estimate and solve world problems to demonstrate skills. Students will also measure and compare length and represent it on a number line. They will continue their study of money and time, as they collect data and graph their findings. Students will also recognize common 2 dimensional and 3 dimensional shapes by specific characteristics. Mathematics 2 is a course designed to engage students with physical manipulatives as well as online videos, lessons, and interactive activities.

Science 2

Science 2 focuses on the process of observation. Students will identify their five senses and why they are critical to observation. They will use these skills throughout the course as they examine many types of plants, animals, and their natural environments. Students will have the opportunity to perform hands-on experiments and write about what they observe. Stories will be used to teach the students about nature and interactions that humans have with nature. Major topics include animal needs, vertebrates and invertebrates, animal food chains, the desert biome, carnivores, herbivores, and omnivores, nature and interactions, plant and animal rhythms. Video instruction, audio stories, hands-on participation, and observation are all important parts of the Science 2 course.

Social Studies 2

Social Studies 2 will begin to explore the broader fundamentals of social studies including culture, geography, and economics. Students will explore Ancient Cultures, geography, and a more advanced study of maps. In the second half of the year, students will be introduced to economic concepts and the role that money plays in every civilization. Students will learn the difference between natural, human, and capital resources. They will begin to understand the exchange of money for goods and services and gain a basic understanding of the concept of scarcity. Students will also continue learning about community and about making a difference in their world. Short stories, videos, arts and crafts, and projects will all be part of the Social Studies 2 course.
Third Grade

Language Arts 3

Language Arts 3 combines reading, writing, grammar, and spelling into a comprehensive course. Students will explore diverse fiction and nonfiction by reading novels, poems, informational texts, plays, and shorter pieces of fiction. Students will use comprehension skills to analyze and respond to these pieces of literature. Using the steps of the writing process, a variety of writing pieces will be produced, including narratives, opinions, informative essays, letters, and poems. Proper grammar and spelling are also taught, including elements such as the parts of speech, proper capitalization and punctuation, figurative language, verb agreement, and types of sentences. The reading selections for this course include Ramona Quimby, Age 8; Owen and Mzee; Who Was Roberto Clemente?; and Charlotte’s Web.

Mathematics 3

Students in Mathematics 3 will refine their addition and subtraction skills, by working with three and four digit numbers with and without regrouping. The concepts of multiplication and division are introduced, and students are expected to understand and master basic multiplication and division facts. Fractions are reviewed, and students will understand the relationship between fractions and decimals. Mathematics 3 also includes studies of time, money, geometry, measurement, and data and graphing. Solving real word scenarios through word problems is emphasized.

Science 3

Students in Science 3 will expand their knowledge of scientific observation with a new focus on experimentation. Learners will participate in simple experiments to explore the water cycle, gravity, the weather, various types of terrain, and the role of plants in the production of oxygen. Major course units include Earth and Sun, Phases of the Moon, Gravity, Five Global Climate Seasons, Plants, Photosynthesis, and Biomes. Science 3 includes video, pictures, short readings, projects, and hands-on experiments. Students will understand that experiments require the use of instruments, observation, recording, and evidence based conclusions. This course provides students with the opportunity to expand their minds and see for themselves the way that science is a part of their everyday lives.

Social Studies 3

Social Studies 3 builds on the concepts of Social Studies 2 as students continue their exploration of geography, culture, and economics. Students will add on to their study of government and civics as they discuss governmental structure, the purpose and importance of laws, and how laws are enacted. Students will examine the production of goods, trade, specialization, and interdependence. They will come to understand the role that individuals play in their economy and community. Social Studies 3 includes storytelling, projects, videos, arts and crafts, and engaging online activities.
Fourth Grade

Language Arts 4

Language Arts 4 integrates reading, writing, speaking, listening, and the study of vocabulary and grammar in a way that engages today's learners and supports them in building a broad and diverse set of literacy skills. This is a literacy-based class, as students will read four novels and a variety of short stories, plays, poems, and story books to emphasize language arts content and skills. Writing assignments in the first half of the year focus on narrative and persuasive modes and emphasize the use of reasoning and details to support opinions. Each writing assignment spans several lessons and guides students through a writing process that begins with prewriting and ends by emphasizing one or more aspects of conventions of standard written English. The second half of the year teaches specific skills for reading poetry, drama, and informational text. Students will learn how informational text differs from literary text and how different forms of informational text differ from each other. Writing assignments emphasize expository writing and guide students through research projects. Near the end of the semester, students learn how to present information orally while using multimedia. In each lesson, engaging and relevant models and step-by-step instruction guide students toward mastery and appreciation of 21st century communication in all its forms and functions. In the Blended Classroom, students will self-select four novels to read from the following titles: Bud, Not Buddy; Tales of a Fourth Grade Nothing; The Tale of Despereaux; Pictures of Hollis Woods; Shiloh; and Wringer. In the Virtual Classroom, students will read Bud, Not Buddy; Tales of a Fourth Grade Nothing; Frindle; and Where the Mountain Meets the Moon.

Mathematics 4

In Mathematics 4, students build upon their knowledge of multiplication and division in order to understand the relationship between operations and multiply and divide with larger numbers. Fractions are a major topic of study with students making equivalent fractions, comparing fractions, adding and subtracting fractions, and investigating the relationship between fractions and decimals. Students explore geometric concepts including properties of polygons, measuring angles, and identifying symmetry in shapes. Additional topics studied include standard and metric measurement, data, money, and graphing. Real life scenarios will be solved through the use of problem solving techniques.

Science 4

In Science 4, students will develop into scientists as they continue to explore the biological, physical, earth, and environmental sciences. Specific units relate to genetics; force, motion, and energy; sound; properties of matter; earth and space; natural resources; the environment; and ecology. Students will have the opportunity to conduct numerous scientific experiments, and will learn about the many career paths in various scientific fields.

Social Studies 4

In Social Studies 4, students will explore the early development of the United States. In the first half of the year, students will explore the culture and history of Native Americans and their interactions with early European Settlers. The establishment of the American colonies and early American government is also introduced. Students will learn about important documents in the founding of the United States and the establishment of rules and laws that have led to the formation of federal and state governments in the United States as we know them today. Students will have the opportunity to explore their own state government and learn more about the rules and regulations that govern where they live. In the second half of the year, students will continue to learn about major events in American History, including science and inventions that helped shape the modern-day United States. Various concepts including economics, the environment, and American geography are interwoven into the content to give students a better idea of all the facets that shape American lives today.
Fifth Grade

Language Arts 5
Language Arts 5 integrates reading, writing, speaking, listening, and the study of vocabulary and grammar in a way that engages today’s learners and supports them in building a broad and diverse set of literacy skills. This is a literacy-based class, as students will read four novels and a variety of short stories, plays, poems, and story books to emphasize language arts content and skills. Students will study classic literature as well as more contemporary forms. Along with learning about and reading a variety of fiction, this course also focuses on skills for reading and analyzing informational text. Writing assignments focus on narrative, persuasive, and expository modes and will emphasize the use of reasoning and details to support opinions. The writing process and standard conventions of grammar and spelling are integrated into writing instruction. Towards the end of the year, students will complete a research project and create an accompanying oral multimedia presentation. In each lesson, engaging and relevant models and step-by-step instruction guide students toward mastery and appreciation of 21st century communication in all its forms and functions. In the Blended Classroom, students will select four novels to read from the following titles: *Because of Winn-Dixie*, *Number the Stars*, *The Watsons Go to Birmingham - 1963*, *Out of the Dust*, *The Island of the Blue Dolphins*, and *Maniac Magee*. In the Virtual Classroom, students will read *Number the Stars*, *The Island of the Blue Dolphins*, *Who Was Amelia Earhart?*, and *The Map Trap*.

Mathematics 5
Mathematics 5 focuses on developing students’ mathematics skills and problem-solving strategies. Problems and activities are designed to get students reasoning abstractly and quantitatively, constructing arguments, and modeling with mathematics. In this course, students add, subtract, and multiply fractions, divide fractions by whole numbers, and divide whole numbers by fractions. They perform multiple operations with decimals along with comparing, ordering, and rounding them. They use exponents to denote powers of 10. Students are introduced to volume and how to calculate it, and they learn to classify two-dimensional shapes into categories. They also graph data on a line plot and the coordinate plane and use graphs to solve real-world and mathematical problems. Course topics include place value and operations, multiplying and dividing whole numbers, decimal operations, fraction operations, expressions and equations, patterns and graphing, measurement, geometry, volume, and data analysis.

Science 5
Science 5 continues to build on elementary science skills and content in preparation for middle school science. Students will begin the course by looking into the scientific process and the importance of investigations and conclusions in the study of science. Next, students will focus on earth and space science by looking at the solar system and planets. Students will come to an understanding of the concept of the Earth as a sphere and the Earth’s place in the solar system. The course continues with a focus on physical science and the different tools that can measure force, time, and distance. Students will grow in their understanding of how light and sound travel and interact with each other, as well as growing their knowledge of different types of energy. The second half of the course includes an in-depth look into life science and the ways organisms are interconnected. Students will learn the different types of ecosystems that exist, how they are interdependent, and how changes to an ecosystem affect the ability to support their populations. Learners will examine plants and their different structures and how those structures allow them to respond to different needs. The course closes with an understanding of the importance of good nutrition to all living organisms.

Social Studies 5
Social Studies 5 puts American history front and center, as students learn about the Native American civilizations of the Americas, the discovery of the New World by European explorers, the founding of the United States, westward expansion, and the coming of the Industrial Revolution. Students are also introduced to Pennsylvania history. Students broaden their understanding of government by recognizing how the system of checks and balances works at both national and state levels, and they identify and interpret important songs and symbols of the United States. Civic responsibility is woven throughout the curriculum, and students learn to recognize the value of public service and the traits of good leaders. Social Studies 5 also explores the themes, tools, and techniques of geography. Students learn how human interaction with the environment has caused change, both beneficial and detrimental, in the past and in the present. Finally, students study how the U.S. economy functions, including the role of government and multinational organizations in domestic and international trade.
### Sixth Grade

#### Language Arts 6
Our world is full of stories. Everywhere we go, we see stories form around us, recognizing that we, too, are part of a bigger story. In Language Arts 6, students will learn the deeper truths of storytelling and the elements that bring these ideas to life. Considering the modes of both fiction and nonfiction, students will engage with lessons in plot, character, dialogue, theme, setting, and more. Utilizing and developing critical thinking skills and analysis will occur throughout the course. Students will also be exposed to elements of writing including analytical, persuasive, informative, and narrative pieces. They will also be engaged in the writing and analysis of poetry and drama. The course focuses on the areas of grammar and mechanics with a strong development of sentence structure and paragraph formation. Students in the Blended Classroom will read extended texts independently throughout the course: two texts are pre-selected, and two texts are selected by students from a list of options. These selections include *The Giver, The Watsons Go to Birmingham-1963, Walk Two Moons, The Westing Game, Freak the Mighty, Seedfolks, True Confessions of Charlotte Doyle,* and *The House of Dies Drear.* Students in the Virtual Classroom will read a series of extended texts through each quarter. These texts include *Wonder, Auggie and Me: Three Wonder Stories,* *The Watsons Go to Birmingham-1963,* and *The Giver.* Language Arts 6 is a textbook-free course.

#### Mathematics 6
Mathematics 6 provides a solid foundation by covering major mathematical concepts including fractions and decimals. In this textbook-free course, students will begin to work with equivalent expressions, rational numbers, and equations and inequalities. Other major areas of study include statistics, graphing, ratios, and the area and volume of shapes.

#### Science 6
Science 6 engages students in life and physical science and beyond! Students will have the opportunity to learn the basics of conducting and designing experiments, investigating the world around them, and understanding what it takes to be a scientist. From classifying organisms to learning the basic properties of matter, students hone their observation skills and learn how to ask scientific questions. Labs, videos, and activities extend their understanding of the science around them. Science 6 is a textbook-free course.

#### Social Studies 6
Social Studies 6 begins by introducing students to the beginnings of ancient civilization. Students will trace the path of human origins and follow human migration around the Earth. This textbook-free course will help students understand why we study history and the process in which we form conclusions about events in the past. Students will learn about the major ancient civilizations of the world and study their cultures. Modern civilizations can trace their foundations to these ancient civilizations, and their cultures and histories teach us much about ourselves and the modern world in which we live. An emphasis will be placed on critical thinking and connecting themes in history to our modern world.
Seventh Grade

**English 7**

Through analysis of written, spoken, and multimedia texts, students will become more critical consumers of information and of various forms of media. They will also synthesize and organize ideas to prepare structured essays in several different modes, including narrative, persuasive, and expository. Each lesson will guide students in learning and applying specific strategies for reading and writing different types of texts. A review of basic English mechanics is included in many of the writing lessons, along with a discussion of levels of formality required for different purposes and audiences. This course provides instruction in many modalities, including audiovisual presentations and videos, interactive activities, projects, and discussions. Opportunities for teacher feedback are frequent, detailed, and varied. In this course, students study the English language closely—both its history and evolution, and the less obvious ways it can be used to convey meaning. The reading assignments and novels are selected to guide students in understanding how language can be used to convey broader themes in poetry, drama, and humorous or satirical texts. Students in the Blended Classroom will read extended texts independently throughout the course: two texts are pre-selected, and two texts are selected by students from a list of options. The selections include *The Crossover, The Outsiders, Where the Red Fern Grows, Nothing But The Truth, The Cay, A Christmas Carol,* and *A Day No Pigs Would Die.* Students in the Virtual Classroom will read a series of extended text through each quarter. The selections include *The Crossover, The Outsiders, It’s Trevor Noah: Born a Crime: Stories from a South African Childhood (Adapted for Young Readers), El Deafo,* and *Fish in a Tree.* English 7 is a textbook-free course.

**Mathematics 7**

Students in Mathematics 7 will extend their understanding of basic operations and increase their knowledge of ratios, rates, and proportional reasoning. Learners will also work with equations, factoring, and problem solving. In order to strengthen their understanding of coordinates, students in Mathematics 7 continue their study of the coordinate plane by working with ordered pairs, linear and nonlinear functions, and patterns. This textbook-free course offers a solid foundation in mathematics by exploring topics that include geometric concepts and probability. The work in geometry includes lines, rays, segments, angles, triangles, quadrilaterals, circles, irregular figures, prisms, and cylinders. Other topics in the course include polynomials, probability, multi-step equations, word problems, fractions, decimals, and absolute value. Mathematics 7 will prepare students for the study of Algebra.

**Science 7**

Science 7 explores the Earth, space, energy, and more! Students will continue to hone their experimentation skills and scientific understanding in this textbook-free course. Students will ponder the wonders of space, discuss their role in positive interactions with the environment, and think about the conservation of energy. Experiments, projects, and activities allow students to work as scientists and gain important understanding of a variety of scientific concepts that are encountered every day.

**Social Studies 7**

Social Studies 7 focuses on the history of the United States. This survey course emphasizes how ideas, events, and philosophies have shaped the nation. In this textbook-free course, students will learn about America’s past while mastering the skills of historical interpretation. Major topics in the first half of the course include Colonial America, the American Revolution, Manifest Destiny, the Civil War, and Reconstruction. The second half of the course focuses on the growth of industry, World War I, World War II, the Civil Rights Era, and the Vietnam War. Social Studies 7 uses a skill-development approach to guide students from early U.S. history to the present.
Eighth Grade

**English 8**

In English 8, students will read and analyze various kinds of written texts, including novels and short fiction, informational texts representing a wide range of topics and forms, and several one-act plays. They will explore the nature of creativity, the processes that tend to produce good literature, and the features of experimental and multi-genre forms of fiction. Students will participate in writing their own narratives and essays, using the readings and class discussion as sources of ideas for reflection, analysis, and argument. They will learn better ways to discuss their thoughts and perceptions with others by practicing their skills in collaborative discussions, journals, and presentations. Special emphasis is placed on reading in certain content areas, such as science and history, as well as understanding and thinking critically about news and media sources. In the process, they'll study the impact of point of view on nonfiction texts. Students will also study the relationship between poetic expression and several conventions of language. Students in the Blended Classroom will read extended texts independently throughout the course: two texts are pre-selected, and two texts are selected by students from a list of options. The selections include *Stargirl*, *Anne Frank: Diary of a Young Girl*, *The Pearl*, *That Was Then - This Is Now*, *Across Five Aprils*, and *My Brother Sam is Dead*. Students in the Virtual Classroom will read a series of extended text through each quarter. The selections include *Stargirl*, *Anne Frank: Diary of a Young Girl*, *Brown Girl Dreaming*, and *Manga Classics: The Stories of Edgar Allan Poe*. English 8 is a textbook-free course.

**Mathematics 8**

In Mathematics 8, students explore a variety of concepts and learn to implement real-world applications to the more abstract algebraic concepts found throughout the course. Multi-step equations, graphing lines, and interpreting slopes are just a few of the concepts students will work with to gain a solid understanding of algebraic equations and problem solving. Additional topics students explore include number systems, square roots, sequences, rational and irrational numbers, linear and algebraic expressions, probability and data representation, surface area, and the Pythagorean theorem. After completing this textbook-free course, students will be prepared for Algebra I.

**Science 8**

Science 8 expands upon students’ understanding of the structures of the Earth, interactions within the environment, and life connections. Students will work on further developing critical scientific skills that allow them to effectively ask questions, design experiments, collect and analyze data, and communicate results. They will consider how humans can both positively and negatively affect population, environment, and self at the local, national, and global scale. Connections to scientific content are made through projects, activities, and experiments that deepen student scientific understanding. Science 8 is a textbook-free course.

**Social Studies 8**

Social Studies 8 focuses on the significance of government, law, and politics. Students will examine the purposes and functions of federal and state government, law, and political systems. In the first half of the course, students will evaluate the role of civic responsibility to their families, communities, and country including voting and being a productive member of society. The second half of the course takes a more individualistic approach as students closely examine topics such as the justice system, local government, the environment, and the economy. Learners will understand the role that they play in each of these topics and the differences they can make. Students will get to know leaders and influential people that have championed many causes including civil rights and the environment. Learners will also learn proper ways to interact in society including interpersonal skills and respecting differences in others, including those with disabilities. By the end of this textbook-free course, students will have a deeper understanding of their civic responsibilities as well as the difference one individual can make in society.
K-8
Additional Courses

Physical Education and Health (K-8)

Physical Education K-6
Pennsylvania Public School Law requires all students to complete an annual course in physical education. In compliance with the law, students in grades K through 6 are required to complete 36 hours of organized, supervised physical activity each school year. Students will receive a physical education kit which includes a workbook and items to complete different physical activities. Students are required to complete at least half of their physical education hours using the items they receive in the physical education kit. Students are also required to record their physical education hours in the PA Cyber Physical Education Log. Looking to have a little more fun in Physical Education? Students in grades 3-6 have the option to take Physical Education with a live instructor one day a week. Students can record this hour on their Physical Education log towards the completion of the 36 hour requirement.

Physical Education 7-8
Pennsylvania Public School Law requires all students to complete an annual course in physical education. In compliance with the law, students in grades 7 and 8 are required to complete 72 hours of organized, supervised physical activity each school year. Students will receive a physical education kit which includes a workbook and items to complete different physical activities. Students are required to complete at least half of their physical education hours using the items they receive in the physical education kit. Students are also required to record their physical education hours in the PA Cyber Physical Education Log. Looking to have a little more fun in Physical Education? Students in grades 7 and 8 have the option to take Physical Education with a live instructor one day a week. Students can record this hour on their Physical Education log towards the completion of the 72 hour requirement.

Middle School Health
By taking Middle School Health, students begin to learn about and adopt healthier lifestyles, diets, exercise routines, and family dynamics. This course covers topics from improving lifestyles to nurturing familial relationships to lessening stress and promoting longer, healthier lives. Students study mental health and how it impacts the overall health of any individual directly. Finally, students learn more about decision making and executing decisions that lead to improved overall health. Topics in this textbook-free course include nutrition, fitness, family, peers, the health triangle, communication, conflict, emotions, disease and disease prevention, alcohol, drugs, tobacco, sexually transmitted diseases, abstinence, and health services. This course is appropriate for grades 7-8.

Middle School Nutrition and Personal Fitness
Middle School Nutrition and Personal Fitness encompasses a variety of topics with a focus on nutrition, dietary needs, and physical fitness. In this textbook-free course, students develop a foundation within the basics of nutrition principles and practices, learn to read food labels, and understand food safety concerns. In regards to physical fitness, students are exposed to exercise guidelines that promote healthy lifestyles. This course is appropriate for grades 7-8.
Fine Arts (K-8)

Students in grades Kindergarten through eighth grade are required to take an ArtsAlive! course each school year in order to meet the Pennsylvania Department of Education’s Fine Arts requirement. ArtsAlive! is an engaging, video-based arts series. It is designed to raise awareness and improve understanding of the creative and performing arts, including music, visual and media arts, dance, theater, and the literary arts. ArtsAlive! will focus on the role of the arts and artists in society, and it will identify the impact of art in the lives of students. Each course includes videos that bring the arts to life. Grade-appropriate activities and response questions will inspire students to become involved in the arts, and will assess understanding of the material and concepts presented. Every ArtsAlive! video, activity, and assessment is aligned with state and national standards.

ArtsAlive! Kindergarten

ArtsAlive! Kindergarten is an engaging exploration of the arts through visually-striking lessons in music, theater, dance, and the visual arts. Students are exposed to various forms, styles, and genres within each discipline by exploring each arts’ elements, brief history, and key creators. Through hands-on projects, students are encouraged to think creatively and have fun! Accompanying ArtsAlive! Kindergarten is a series of storybooks that follow two young students, Kate, a squirrel, and Oliver, a beaver, as they, too, learn about art in their forest classroom from their eccentric teacher, Dr. Albert, the owl.

ArtsAlive! First Grade

ArtsAlive! First Grade guides students through a captivating exploration of the arts through a series of media-rich lessons in music, acting, creative movement, the visual arts, and creative storytelling. Students are exposed to many forms, styles, and genres of art from around the world. The lessons in ArtsAlive! First Grade connect students to the overall theme of character, which is explored throughout each discipline. Through hands-on projects, students are encouraged to think creatively and have fun while deepening their appreciation for the arts. Accompanying this course is a series of storybooks that continue to follow two young students, Kate and Oliver, and their friends as they move into the fascinating world of the first grade.

ArtsAlive! Second Grade

Through a series of engaging, media-rich lessons, ArtsAlive! Second Grade takes students through lessons in music, acting, creative movement, the visual arts, and creative storytelling. Using a wide range of artistic genres, styles, and forms, students will explore the theme of setting through hands-on projects and creative exercises. Each lesson is created to encourage and foster original thought while also providing a deeper artistic appreciation for each student. Accompanying this course is a series of storybooks that continue to follow two second grade students, Kate and Oliver, and their friends as they learn and grow in the second grade.

ArtsAlive! Third Grade

ArtsAlive! Third Grade fosters students’ creativity and self-expression through a series of fun, engaging, and thought-provoking lessons in creative writing, music, acting, dance, and the visual arts. Using hands-on projects throughout the course, students explore the theme of artistic form and structure as they relate to all the arts. While learning artistic structure, students will explore their creativity and continue to grow a deeper appreciation for their own self-expression. Accompanying this course is a chapter book that takes students on a journey along with two other third-grade students, Kate and Oliver, and their friends as they learn and create throughout their third grade experience.
**ArtsAlive! Fourth Grade**

In ArtsAlive! Fourth Grade, students will explore creativity and self-expression through media-rich lessons in creative writing, music, acting, dance, and the visual arts. Through lessons and hands-on projects, students will explore the theme of point of view as it relates to the arts as a whole. While exploring the concept of point of view, students will use their creativity to grow a deeper understanding and appreciation of the arts and their own self-expression. Accompanying this course is a chapter book that encourages students to relate the ArtsAlive! lessons to their own experiences through a series of fun and engaging stories told by Kate, Oliver, and their friends.

**ArtsAlive! Fifth Grade**

In this course, the arts come alive through a series of engaging, media-rich lessons! ArtsAlive! Fifth Grade takes students through topics in music, acting, dance, the visual arts, and creative writing by diving into their elements and fundamentals. Students will explore a wide range of artistic genres, styles, and forms—both modern and historic, through hands-on projects and creative exercises. As students experience these lessons and exercises, they are encouraged to foster their own creativity by engaging in unique, original thought. Students will also gain a deeper, life-long appreciation for artists, musicians, actors, dancers, and writers. Accompanying this course is a chapter book that continues to follow two fifth-grade students, Kate and Oliver, and their friends through their education, both in school and out, as they continue to learn and grow.

**ArtsAlive! Sixth Grade**

The arts come alive in ArtsAlive! Sixth Grade as students explore and experience the power of creativity and ingenuity through media-rich lessons in music, acting, creative writing, and the visual arts. Organized into four Experiences, students will explore the step-by-step creative process as they learn how to tell stories with originality and imagination. Students will start by learning how to play the ukulele while writing their own songs. They will explore storytelling through acting, film, and theater as they try their hand at writing their own scenes. As they explore the art of comic strips, animation, and graphic novels, they will learn how powerful images can be as a storytelling tool. And lastly, students will uncover the mystery of myths and legends as they create their own through words, images, and music. Each online lesson is connected to a printed notebook designed to help students reinforce topics and skills through hands-on activities.

**ArtsAlive! Seventh Grade**

Explore and experience the arts through ArtsAlive! Seventh Grade’s engaging, media-rich lessons in music, acting, creative writing, digital media, and the visual arts. Organized into four hands-on Experiences, students will spark their creative imagination as they explore why and how the arts can create personal and global change. In their first Experience, students will learn the ukulele to express themselves through music and song. Next they learn about character development and mind mapping through sculpture and scenic design. Through the next Experience, students will explore the power of spoken word, its journey from activism to art, and its place in today’s society. And finally, students will explore the magic and wonder of comedy as they create their own laughable moments. Each online lesson is connected to a printed notebook designed to help students reinforce topics and skills through hands-on activities.

**ArtsAlive! Eighth Grade**

The arts, creativity, and imagination are all important aspects of our lives. In ArtsAlive! Eighth Grade, students will explore and experience how these creative elements can enhance and enrich their own life. Through a series of four Experiences, students’ creativity will bloom as they explore media-rich lessons in music, acting, media arts, entrepreneurship, and creative writing. As they embark on their first Experience, students will use an instrument called a melodica to continue their exploration of music and storytelling through song. Students will become entrepreneurs as they create their own brand through marketing, graphic design, and creative storytelling. As they continue through their exploration of creativity and imagination, students will focus on the importance of clear and effective communication skills while also being clever and unique. And students will wrap up their ArtsAlive! Experiences by using all of their skills to craft their own life story into a scene for the screen or stage. Each online lesson is connected to a printed notebook designed to help students reinforce topics and skills through hands-on activities.
Career Readiness (K-8)

The landscape of career and college readiness is rapidly changing. The Pennsylvania Department of Education requires all public schools to provide career and college readiness programming to all students in grades Kindergarten through 12.

Students in grades 2, 5, and 8 are required to complete one of the career classes listed below to meet the requirement set forth by the Commonwealth. These courses are asynchronous and are developed around Xello and Career Cruising's online software. By the end of each course, students will create a portfolio of work that follows them through their educational journey.

Future Forward 2

Second grade students will be introduced to the world of careers and work through Xello's online career exploration software to help the residents of Career Town solve a mystery. Students will learn about different types of jobs that people do to earn a living. They will also examine their own interests and abilities to think about what they might like to do when they grow up. By the end of this course, students will reflect on their interests and talents to develop multiple pieces of work to begin a career portfolio.

Future Forward 5

Fifth grade students will learn about careers, work, and entrepreneurship in this course. Students will utilize Xello's online career exploration software to learn more about themselves and the world of work and careers. Through this course, students will understand how their interests, skills, and talents can help them determine potential career paths for their future. By the end of this course, students will use what they have learned to add multiple pieces of work to their career portfolio.

Career Forward 8

Eighth grade students will expand their knowledge of career awareness and begin to develop a plan for their life after school. Students will complete personal interest inventories and explore potential careers by participating in a range of activities using the online Career Cruising program. In Career Forward 8, students will learn what types of careers they may be interested in and how to use those interests to create an initial career plan. This textbook-free course will allow students to practice effective speaking and listening skills, and give them the opportunity to learn more about personal finance and entrepreneurship. Career Forward 8 will help students plan a path for high school success and beyond.

Elementary and Middle School Electives (Grades K-8)

Art K

In Art K, students are introduced to the ways in which they can express ideas and demonstrate their creativity through art. Throughout this course, students are encouraged to use their imagination to create art. They use a wide variety of materials to make their artwork, and they learn safe methods for using those materials. They explore the importance of working with others by collaborating both to create art and to solve artistic problems. Students use multiple techniques while working with the same artistic medium, and they create various scenes, including a nature scene, a construction scene, and an underwater scene. In addition, Art K encourages students to begin thinking about the artwork of others. They learn about well-known artists and the common tools those artists used. They also learn about art museums and consider how pieces of artwork make them feel. Finally, students create works of art that are of a more personal nature, including art depicting their own community, a self-portrait, and an illustration of their favorite book. Throughout Art K, students learn art terminology so that they are able to connect ideas and demonstrate the beginnings of a strong artistic foundation.
Art 1
In Art 1, students learn how daily life can be used as inspiration, and how it can be depicted through artwork. They categorize artworks according to the subject matter each is portraying. Additionally, students learn to recognize the elements of art and the principles of design, and they rate artwork. Students explore the ways in which artwork is created outside of the school setting, and they discover that art is made for different reasons. As practicing artists, students will develop their art vocabulary, art understanding, and artistic skills as they work through prompts supplied in the course.

Art 2
In Art 2, students explore artistic expression. They also learn to organize art into categories and to identify the various methods and materials used to create art. Throughout this course, students expand their artistic vocabulary, using it to describe the works they are studying. They explore the ways in which color can represent mood in artworks and create their own works to express their mood. While learning safe procedures for working with artistic materials, students experiment with mixing colors. In addition to creating artwork that depicts family, school, and community life, students also gain familiarity with works from European and Asian cultures.

Art 3
In Art 3, students create, experiment, revise, present, analyze, and respond to artwork. Students learn the importance of presenting their art and the necessary components to consider when doing so, such as the display space, artwork preparation, and display limitations. Students revise and enhance their art in order to tell a better visual story. They also learn how to ask important questions regarding the imagery and materials an artist uses to better understand the message of the work. Art 3 gives students the observation tools they need to perceive their world and create art based on what they see and how they feel.
Art 4
In Art 4, students begin thinking about the meaning behind works of art. They work both independently and collaboratively to brainstorm ideas for visual art, set artistic goals, and create meaningful artistic pieces. Students experiment with oil pastels and nontraditional art-making approaches and materials. They explore how regional influences can inspire an artist and create their own art based on regional inspirations. Students observe the various ways in which art can be displayed, where it can be displayed, and how its placement can impact the artist’s message. Students compare and contrast works from different cultures and create art to reflect their own cultural traditions. They also learn to use context to interpret artwork and infer information about the time, place, and culture in which works were created.

Art 5
Art 5 gives students opportunities to work with a wide range of materials, from metal to watercolors, all while further developing their techniques and skills as artists through repeated practice. Students learn to analyze, interpret, and talk about art with their peers as well as other admirers of art. They are introduced to the idea of cultural associations and perceptions and are asked to look at imagery critically. In doing so, students learn to decide how the details of their own work could be interpreted by others. Throughout this course, students create artwork that will bring attention to topics they find important. Their work will illustrate their awareness of their surroundings and will show their developing artistic abilities.

Art 6
Art 6 encourages students to collaborate to create art. Students investigate how art can be personally significant while learning to be open to new artistic ideas, materials, methods, and creative approaches. In this course, students also explore the ways in which art equipment and materials can affect the environment. They study why and how artistic design can influence people, and they design art for a diverse population. Students also determine whether works of art successfully communicate their intended message. This course introduces three-dimensional art, and students compare two-dimensional and three-dimensional pieces before creating their own 3-D artwork. They will view art from around the world and determine what the works reveal about the values and lifestyles of the people depicted in the works. Finally, students learn the importance of preserving art and the ways in which to critique art.

Art 7
In Art 7, students transition from exploratory art discovery to a more discipline-based approach. This new approach focuses on developing students’ skills and techniques as well as content knowledge, while still allowing for exploration and individuality. Students have the opportunity to act as real artists through repeated sketching, concept development, and continued research and observation activities while they work with a variety of media. Art 7 includes a strong focus on independent, creative thinking and problem solving through project-based learning. This course is designed to cover a half year of instruction, but it can be completed at each student’s own pace. The project-based activities have dedicated, multi-day lessons to allow students time to sufficiently and successfully develop their ideas and artwork.

Art 8
In Art 8, students will be introduced to design elements and principles, as well as contemporary art-making processes. The course begins with an exploration of the basics of art. Students will then explore art journaling, artistic investigation and evaluation, and how to design a graphic novel cover. The course also includes making a photographic collage, a grid portrait, and a masking tape mural. Students will enjoy completing projects while they explore the art of conceptual thinking.
### Music K
In Music K, students are introduced to the expression of ideas and creativity in music through active involvement. Students will respond, connect, perform, and create music to enhance gross and fine motor skills, vocal development, self-expression, personal connection, originality, visual recognition, and audition while developing music terminology. Some of the topics explored within this course include rhythm, tempo, pitches, melodic direction, dynamics, and AB forms.

### Music 1
In Music 1, students are introduced to music fundamentals such as solfège, rhythms, dynamics, meter, instrument families, and dance forms. Each topic is presented through the use of music and movement activities that include reading, singing, dancing, and writing. Students improvise original rhythmic compositions. They sing using various forms of musical expression and dance. They learn and practice proper stage and performance etiquette techniques, and they explore the ways in which music and dance work together to create specific dance forms. Students also learn about American composers whose music has influenced American society.

### Music 2
In Music 2, students explore musical expression. They investigate how musical concepts such as tempo are used to achieve the musician’s expressive intent. Students identify the role and responsibility of a music composer and seek out the connections between music, other arts, daily life, and history. Throughout the course, they perform songs with movements and improvise rhythmic patterns and melodies. They create and record musical ideas through a recording device or on paper. Students learn to identify how personal interests and experiences influence music selection and instrument choice. Through these studies, they evaluate music from the Irish, African, and Japanese cultures. Additionally, they work with standard and iconic notation. Finally, students use the musical skills learned in this course to evaluate recorded music and make suggestions for improvement.

### Music 3
In Music 3, students explore musical basics such as melody, harmony, dynamics, tempo, timbre, texture, and context. They also reflect upon how these elements affect a listener’s response to the music. Students use standard notation to read and write notes and rhythm in the treble clef and then practice playing those notes on instruments including the hand drum, rhythm sticks, and the soprano recorder. They learn about new musical ideas such as the pentatonic sound, major and minor scales, and singing in solfège. Finally, students identify key classical composers and explore new musical genres such as blues, bluegrass, country, jazz, and pop music.

### Music 4
In Music 4, students identify how the elements of music (melody, harmony, timbre, dynamics, and tempo) affect what a piece of music communicates to a listener. Students label or perform three different examples of rhythm in addition to musical notes such as the eighth note and the sixteenth note. They identify notes on the bass and treble clef. Students learn the difference between sharps and flats and major and minor scales. They create simple melodies with chords and mark tempo, time signature, and signature key. Students explore different musical characteristics and instruments from Africa in addition to Latin American and Celtic music and dance. Finally, students explain how social and cultural contexts influence a musical performance.

### Music 5
In Music 5, students demonstrate their ability to create, perform, analyze, and respond to music while making connections to personal, social, cultural, and historical perspectives. By the end of the course, students will be able to read music notation, compose music, and improvise original melodies. Students will also apply what they learn through interactive learning activities and performances on a variety of instruments including, but not limited to, the tambourine, rhythm sticks, maracas, and the soprano recorder.
Music 6
In Music 6, students express ideas and creativity through music. Students apply music terminology to different instrument groups and learn to read music. Additionally, students discuss different forms of music and popular songs within Western and worldwide music. Additional topics include music genres, the history of recorded music, improvisation, beginning composition, piano and its famous composers.

Music 7
In Music 7, students explore the history, development, and attributes of American music. They will learn music theory and music reading skills, which are presented and reinforced within the context of historical musical works. Students interpret sheet music that represents various genres of American music. Additionally, students practice performing music vocally and with a pitched instrument. Additional topics include foundations of music, musicalities, musical architecture, westward bound, turn of the century, taking the stage, pop music, and music of the future.

Music 8
In Music 8, students are introduced to a variety of music genres and instruments. Students explore the concepts of rhythm, melody, timbre, texture, dynamics, form, and rhythm, and they learn how to sight read music. Students listen to various examples of songs to interpret performances, and they compose and perform their own song. Additional topics include music theory, elements of music, families of instruments, music genres, world music, talent competitions, sight reading, writing music, and composing.
Coding and 3D Design

Learn new digital skills in this class about computer programming and 3D design. Students learn to write code by creating programs for the Circuit Playground, an electronic device that includes lights, sounds, and even motion detection! Essential coding skills will be covered, including topics such as input/output, loops, conditionals, and functions. Additionally, this course includes 3D design projects with a focus on making designs for 3D printing. Students will learn design thinking skills through 3D projects that emphasize measurement, tolerances, material properties, and manufacturing processes. This textbook-free course is appropriate for students in grades 6-8.

Cursive Handwriting

In this course, students will have the opportunity to learn the art of cursive handwriting. This course uses videos and written lessons to demonstrate and explain how each letter is formed and written. Students will practice their cursive writing using engaging worksheets. This course is appropriate for students in grades 2-8.

Introduction to Computer Programming

This course allows students to gain insight into the world of computer programming, data processing, scripting, and coding. Through Introduction to Computer Programming, students are frequently challenged with problems that require different programs and scripts to resolve. Students will look into careers within this realm by focusing on security in technology, creative software, animation software, and hardware programming. In this textbook-free course, students also cover the basics of computer programming, ensuring they are well-rounded, computer-minded students. Some topics students will explore include technology quality assurance, programming languages, encoding and decoding, scripting and coding, databases and data processing, file management, ergonomics, and adaptive technology. This course is appropriate for students in grades 6-8.

Introduction to Foreign Language

Introduction to Foreign Language is geared toward students who are interested in taking a foreign language, but are not sure in which language they would like to begin their studies. This course provides the perfect introduction to the German, Spanish, and French languages, while exploring culture and other important dynamics. Basic vocabulary and structures of each language are introduced in a fun and educational way in this textbook-free course. Introduction to Foreign Language is appropriate for grades 6-8.

Introduction to Typing

Students who are interested in learning proper typing techniques and increasing their typing speed or WPM (words per minute) are a perfect fit for this introductory course. Introduction to Typing is an exciting beginner’s course that teaches proper techniques through interactive and engaging lessons and activities. In this textbook-free course, students have the opportunity to learn proper posture, finger positioning, and typing strategies. Some topics explored in this course include internet safety and netiquette, rapid typing lessons, formatting documents, punctuation and spacing rules, and QWERTY and numeric keyboards. This course is appropriate for grades 6-8.

Scratch Coding

Scratch is a program developed by MIT that teaches students the basics of how computers think. This program will introduce students to real coding programs and allow them to drag and drop coding blocks, creating a fully functional program. The simple user interface and tutorials allow students to quickly create and run their code to see its results. This course assumes no prior computer coding knowledge and includes self-graded multiple-choice tests and quizzes. Scratch coding is a textbook-free course, and is appropriate for students in grades 6-8.
### Graduation Requirements

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<thead>
<tr>
<th>Credits</th>
<th>Subject</th>
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<tbody>
<tr>
<td>4.0</td>
<td>English Language Arts</td>
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<tr>
<td>4.0</td>
<td>Mathematics (1.0 credit in Algebra I required)</td>
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<tr>
<td>3.0</td>
<td>Science (1.0 credit in Biology required)</td>
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<tr>
<td>4.0</td>
<td>Social Studies</td>
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<tr>
<td>2.0</td>
<td>Fine Arts</td>
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<tr>
<td>3.5</td>
<td>Electives (0.5 credit Career Forward 11 required)</td>
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<tr>
<td>1.0</td>
<td>Physical Education</td>
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<tr>
<td>0.5</td>
<td>Health</td>
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**22.0 Credits Total Required for Graduation**

All students in grade 9 will be enrolled in High School Essentials.

The Pennsylvania Cyber Charter School requires all students to complete Career Forward 11 in order to be eligible for graduation.

Beginning with the graduating class of 2023, statewide graduation requirements provide pathways for high school students to demonstrate readiness for postsecondary success as outlined in Act 6 and Act 158.

The Pennsylvania Cyber Charter School encourages parents to monitor their child’s progress toward meeting graduation requirements. Parents play a vital role in ensuring that their child has earned the required number of credits by their senior year. Typically, a student begins to accumulate credits as a freshman.
English Language Arts
Four credits in English Language Arts are required for graduation.

English 9
English 9 is an integrated curriculum. Each unit contains thematically related lessons in five domains: reading and the study of literature, reading informational text, writing, speaking and listening, and language study, including word knowledge and grammar skills. Topics are presented in ways that help young adolescents relate literacy skills to other aspects of their lives. Writing assignments include narrative, expository, and persuasive/argumentative modes and emphasize the use of details and reasoning to support ideas. Course lessons guide students through the stages of research and demonstrate how to evaluate, integrate, and share the information gathered during research. Vocabulary development instruction is integrated into literature and informational text lessons. Students in the Blended Classroom will read extended texts independently throughout the course: two texts are pre-selected, and two texts are self-selected by the student. These selections include Romeo and Juliet, To Kill a Mockingbird, The Old Man and the Sea, House on Mango Street, Fahrenheit 451, The Odyssey, Ender's Game, Speak, and Of Mice and Men. Students in the Virtual Classroom will read two required texts including To Kill a Mockingbird and Romeo and Juliet. Additionally, students will complete an independent novel study where they can choose from the following novels: Monster, House on Mango Street, Fahrenheit 451, or a different teacher-approved novel. English 9 is a textbook-free course. Pre-Requisites: None

English 10
English 10 is an integrated curriculum, with each unit consisting of thematically related lessons in five domains: analyzing literature, analyzing informational text, writing, speaking and listening, and language study, including word knowledge and grammar skills. Skills practiced in this course are similar to the skills in English 9, but require more independence and depth of thought. An introductory lesson at the start of each unit helps students identify any areas of weakness and review those topics. Literature study in this course focuses on the analysis of different forms of literature as well as the evaluation of various modes and forms of writing. Writing assignments required in this course include fiction, expository, persuasive, and analytical modes, emphasizing the use of details, evidence, and reasoning to support ideas. Course lessons guide students through the stages of a rigorous research process and demonstrate how to evaluate, integrate, and share the information gathered during research. Students are required to share their ideas and analysis using several different modes, including oral and multimedia presentations. Speaking and listening lessons cover how to plan and deliver informative speeches and presentations. Vocabulary development instruction is integrated into literature and informational text lessons. Students in the Blended Classroom will read extended texts independently throughout the course: two texts are pre-selected, and two texts are self-selected by the student. These selections include Animal Farm, Night, Twelfth Night, Catcher in the Rye, The Bean Trees, All Quiet on the Western Front, Lord of the Flies, Farewell to Manzanar, and Antigone. Students in the Virtual Classroom will read the required texts Twelfth Night, Night, and Animal Farm. Additionally, students will complete an independent novel study where they can choose from the following novels: Farewell to Manzanar, The Bean Trees, and Lord of the Flies, or students may choose another teacher-approved novel. English 10 is a textbook-free course. Pre-Requisites: English 9
**English 11**

English 11 is an American literature course. Course units are organized chronologically according to periods in literary history, with a focus on historical eras and literary movements. As students read foundational works of literature and other historical documents, they will review and extend skills in five domains: analyzing literature, analyzing informational text, writing, speaking and listening, and language study, including word knowledge and grammar skills. Each module, or unit, begins with a lesson that provides historical context and introduces themes that emerged in the literature of that era. Each literature lesson provides students with an opportunity to review basic analysis skills before applying those skills to works of literature or key historical documents. Writing assignments in this course include narrative, reflective, persuasive, analytical, and research-based modes. Students in the Blended Classroom will read extended texts independently throughout the course: two texts are pre-selected, and two texts are self-selected by the student. These selections include *The Great Gatsby*, *Death of a Salesman*, *The Scarlet Letter*, *Farewell to Arms*, *My Antonia*, *A Lesson Before Dying*, *Black Boy*, and *Adventures of Huckleberry Finn*. Students in the Virtual Classroom will read two required texts: *The Great Gatsby* and *The Crucible*. Additionally, students will complete an independent novel study where they can choose from the following novels: *Orphan Train*, *Death of a Salesman*, *The Scarlet Letter*, *Farewell to Arms*, *My Antonia*, *A Lesson Before Dying*, *Black Boy*, or students may choose another teacher-approved novel. English 11 is a textbook-free course. **Pre-Requisites:** English 9; English 10

**AP English Language and Composition**

Being able to communicate effectively is one of the most important skills any student can learn. It is essential to every profession and in every field of study. The focus of this course is on the most common form of communication in today's world: writing. While other English classes focus on reading and analyzing texts to determine what the author is trying to say, AP English Language and Composition looks at how the author is conveying their message. Students will analyze various texts and the choices authors make as well as studying various strategies of effective writing. Students will also practice these skills in their own writing, mirroring the experience of a first-year college writing course. While this course is specifically aligned to prepare students to pass the AP Language and Composition test, the larger emphasis is on improving student writing through rigorous analysis, reflection, revision, criticism, and feedback. This is a College Board approved Advanced Placement Course, and students may receive college credit by earning a sufficient score on the AP Exam. **Pre-Requisites:** English 9; English 10; Letter grade of B or higher in previous English courses.

**AP English Literature and Composition**

Maturity of Thought - Devotedness to Learning - Willingness to Transcend: these are the core tenets of Advanced Placement English Literature. An adherence to these will allow one to become a distinguished student of literature, composition, and everything in between. This course follows all of the curricular guidelines set forth by the College Board’s AP Course Description, and will allow students to study key authors, ideologies, and contexts while responding in writing. Students may receive college credit based upon completion of the course and a sufficient score on the AP Exam. This course is designed to teach students college level writing coupled with a distinct understanding of various literary genres. The introduction into these genres will take the class near and far, studying authors, poets, and dramatists of varied cultures and eras. A well-rounded education of literature sets students free to study the influence of an author’s work in their historical and cultural situation, as well as our own. As the author, their history, and their influence are studied, the student’s responsibility then, is to respond. Writing, discussion, and personal analysis will be the main modes of response. In order to study a piece of literature through critical analysis, a student must be able to understand, explain, and evaluate a text on a variety of levels, genres, styles, and contexts, vocabulary, syntax, mechanics, and figurative language. Featured novels include *The Great Gatsby*, *The Namesake*, *Crime and Punishment*, *Brave New World*, and *Wuthering Heights*. These things and more will all be an important part to the collaborative study of literature. This course is a College Board-approved Advanced Placement course. **Pre-Requisites:** English 9; English 10; Letter grade of B or higher in previous English courses.
### Technical Writing

Written communication skills and documentation in the business environment are central to the Technical Writing course. This textbook-free course enables students to understand a variety of documents and allows them to perfect their technical writing abilities. From journal writing, email, and directional writing to memos and letter drafting, students encounter numerous types of technical writing and build upon their technical skills and knowledge. **Pre-Requisites:** None

### Creative Writing

Creative Writing is designed to help students build a compelling and creative writing style. Students will focus on word nuances and precisions, while they write in a variety of short modes including: poems, song lyrics, prose poetry, short stories, and creative nonfiction. Creative Writing will allow students to expand their facility with language through the writing process, while giving them an opportunity to express themselves through different genres. Creative Writing is a textbook-free course. **Pre-Requisites:** None

### English Grammar

English Grammar covers sentence skills, parts of speech, modifiers and parallelism, punctuation and mechanics, and word usage. Students will have the opportunity to engage in the writing and revision process as part of English Grammar. In addition, students will master standard English so they can succeed in the classroom, the workplace, college, or a technical area. Students will also build a working vocabulary throughout the course. English Grammar is a textbook-free course. **Pre-Requisites:** None

### Short Stories

Short Stories exposes students to the basic characteristics, writing style, and literary elements of a story. From characters, point of view, and setting to techniques such as suspense and irony, students learn how short stories provide readers with the opportunity to experience different storylines in a precise and defined format. Students become acquainted with the compact nature of the short story literary form and each author’s ability to weave exciting, interesting narratives in such short, tight spaces. In this textbook-free course, students learn the importance of being concise, recognizing that good literature does not necessarily have to be lengthy in order to be captivating. **Pre-Requisites:** None
African American Literature

This discussion and text-based course analyzes works written by African American authors from enslavement to the contemporary era. The course will examine a variety of influential Black and African American authors who helped to shape Black culture throughout history. This course will begin with contemporary texts that explore race and challenging social topics, then work through historical texts to analyze how history impacts our modern era. Students will be expected to participate in class discussions, create projects, and provide written reflections on the readings. Over the course of the semester, students will study major works from African American Enslavement, Reconstruction, the Harlem Renaissance, the Civil Rights Movement, and Modernism. Students will complete a quarterly presentation on major Black figures including artists, poets, scientists, and activists to highlight Black voices throughout history. In addition to short stories, poems, and other works, students will read the novels The Hate U Give, A Long Way Down, and Between the World and Me. Pre-Requisites: English 9; English 10

Exploring Young Adult Literature

This upper level course will give students the opportunity to become lifelong readers by being exposed to quality young adult literature (YAL) and by being able to connect to teenage protagonists. Today, 21st century students face different issues than 20th century teenagers, and there is a plethora of YAL that can help the teens of today cope and resolve conflict in their own lives. Various themes and coming of age issues will be addressed throughout this course making the literature relatable and interesting. The course will explore themes of alienation, family issues, self-discovery, relationships, death, suicide, and survival. In Exploring Young Adult Literature, students will read eight novels and the heavy reading load will require students to read outside of class. In addition, live class sessions require active participation. Students are expected to complete pre-class work prior to live sessions. Exploring Young Adult Literature will include the following texts: The Outsiders, Tuesdays with Morrie, Speak (both the novel and graphic novel), The Fault in Our Stars, 13 Reasons Why, The Alchemist, Staying Fat for Sarah Byrnes, and Every Last Word. Students and parents considering this course are encouraged to contact the school for additional information regarding the assigned texts and their subject matter. Pre-Requisites: English 9; English 10

Contemporary Young Adult Literature

In this advanced course, students will be exposed to quality and diverse young adult literature (YAL), and will discuss a variety of themes and coming of age issues. Today, 21st century students face different issues than 20th century teenagers, and there is a plethora of YAL that can help the teens of today cope and resolve conflict in their own lives. The course will explore themes of alienation, mental illness, self-discovery, relationships, death, suicide, rape, abortion, and coming out. Students will read eight novels and the heavy reading load will require students to read outside of class. In addition, live class sessions require active participation. Students are expected to complete pre-class work prior to live sessions. Contemporary Young Adult Literature will include the following texts: Deadline; Catalyst; All the Bright Places; We Were Liars; Exit, Pursued by a Bear; Aristotle and Dante Discover the Secrets of the Universe; Dear Evan Hansen; and Long Way Down. Students and parents considering this course are encouraged to contact the school for additional information regarding the assigned texts and their subject matter. Pre-Requisites: English 9; English 10

Literary Explorations

The literature of the world is connected one way or another. From the philosophical writings of the ancient world to the contemporary novels of today, literature is linked in a global, timeless communication that will continue on into the future. Literary Explorations attempts to pinpoint and analyze some of these connections. Whether it is the wisdom of Plato, the predictions of Orwell, or the imagination of Tolkien, avid readers can find similar themes, ideas, and truths that help to define the world around us. By identifying linkages in literature, readers may find themselves making their own connections by observing the world around them, watching films or television, reading the newspaper, and conversing with others. Readings in the course include The Giver, Gathering Blue, Messenger, Anthem, Fahrenheit 451, 1984, The Road, Walden Two, Beowulf, The Hobbit, and the Lord of the Rings trilogy. Pre-Requisites: English 9; English 10, English 11.
Mathematics

Four credits in Mathematics, including Algebra I, are required for graduation.

Algebra I

Algebra I is an exploration of variables, function patterns, graphs, and equations. Students are expected to describe and translate graphic, algebraic, numeric, and verbal representations of relations and use those representations to solve problems. Students are introduced to rational numbers, systems of equations and inequalities, exponential functions, factoring, and quadratic equations and functions. Algebra I provides a solid foundation for further study in mathematics by helping students develop computational, procedural, and problem solving skills. Upon completion of this textbook-free course, students will be required to take the Keystone Algebra I Exam. Pre-Requisites: Mathematics 7 or Mathematics 8

Algebra IA

Algebra IA introduces students to the world of Algebra through expressions and equations. Students will evaluate algebraic expressions, solve linear equations, and graph them. This course also guides students through various real-world scenarios with the emphasis on using basic statistics to interpret the information given and found. Students learn through videos, interactive activities, and real world application projects. Algebra IA is designed for students who need additional time to master the concepts of the Algebra I course. Students will have the opportunity to take Algebra I over a two year time period by completing Algebra IA and then completing Algebra IB. Students will take the Keystone Exam at the completion of the Algebra IB course. Algebra IA is a textbook-free course. Pre-Requisites: Mathematics 8

Algebra IB

Algebra IB is a continuation of the Algebra IA course. Students will work with problems and applications that involve exponents, quadratic equations, polynomials and factoring methods. In addition, students will explore rational and radical equations, data analysis and probability. Students will interact with course materials through online lessons, videos, interactive questions, and real world applications. Students will take the Keystone Exam at the completion of the Algebra IB course. Students must have successfully completed Algebra IA prior to taking Algebra IB. Algebra IB is a textbook-free course. Pre-Requisites: Algebra IA

Geometry

In Geometry, students create a solid foundation in mathematics by studying and exploring a wide range of geometric concepts. Students study the basics of geometric equations and how these equations are present in daily life. They calculate perimeter and work directly with angles and arcs to evaluate the importance of geometric mathematics in construction. Course topics include angle relationships, parallel and perpendicular lines, congruence, bisectors, trigonometry, and transformations. Pre-Requisites: Algebra I

Algebra II

In Algebra II, students analyze situations verbally, numerically, graphically, and symbolically. Students will become proficient at solving equations and inequalities. Students extend their knowledge of algebraic expressions, absolute value, functions, and graphs. Rational expressions, the interpretation of functions, complex numbers, binomial expansion, and trigonometric functions are an important part of the course. Algebra II prepares students for more difficult mathematical concepts and content. Pre-Requisites: Algebra I

Trigonometry

This course begins by covering basic fundamentals of trigonometry. It accelerates quickly into more advanced trigonometry applications that encompass principles of science, technology, and engineering. Students will explore concepts from radian and degree measurement to unit circles, trigonometric functions, and sine and cosine functions. Pre-Requisites: Algebra I; Geometry; Algebra II

Delivery Modes: Virtual Classroom (VC) Blended Classroom (BC) Asynchronous Classroom (AC)

Mathematics

Four credits in Mathematics, including Algebra I, are required for graduation.

Algebra I

Algebra I is an exploration of variables, function patterns, graphs, and equations. Students are expected to describe and translate graphic, algebraic, numeric, and verbal representations of relations and use those representations to solve problems. Students are introduced to rational numbers, systems of equations and inequalities, exponential functions, factoring, and quadratic equations and functions. Algebra I provides a solid foundation for further study in mathematics by helping students develop computational, procedural, and problem solving skills. Upon completion of this textbook-free course, students will be required to take the Keystone Algebra I Exam. Pre-Requisites: Mathematics 7 or Mathematics 8

Algebra IA

Algebra IA introduces students to the world of Algebra through expressions and equations. Students will evaluate algebraic expressions, solve linear equations, and graph them. This course also guides students through various real-world scenarios with the emphasis on using basic statistics to interpret the information given and found. Students learn through videos, interactive activities, and real world application projects. Algebra IA is designed for students who need additional time to master the concepts of the Algebra I course. Students will have the opportunity to take Algebra I over a two year time period by completing Algebra IA and then completing Algebra IB. Students will take the Keystone Exam at the completion of the Algebra IB course. Algebra IA is a textbook-free course. Pre-Requisites: Mathematics 8

Algebra IB

Algebra IB is a continuation of the Algebra IA course. Students will work with problems and applications that involve exponents, quadratic equations, polynomials and factoring methods. In addition, students will explore rational and radical equations, data analysis and probability. Students will interact with course materials through online lessons, videos, interactive questions, and real world applications. Students will take the Keystone Exam at the completion of the Algebra IB course. Students must have successfully completed Algebra IA prior to taking Algebra IB. Algebra IB is a textbook-free course. Pre-Requisites: Algebra IA

Geometry

In Geometry, students create a solid foundation in mathematics by studying and exploring a wide range of geometric concepts. Students study the basics of geometric equations and how these equations are present in daily life. They calculate perimeter and work directly with angles and arcs to evaluate the importance of geometric mathematics in construction. Course topics include angle relationships, parallel and perpendicular lines, congruence, bisectors, trigonometry, and transformations. Pre-Requisites: Algebra I

Algebra II

In Algebra II, students analyze situations verbally, numerically, graphically, and symbolically. Students will become proficient at solving equations and inequalities. Students extend their knowledge of algebraic expressions, absolute value, functions, and graphs. Rational expressions, the interpretation of functions, complex numbers, binomial expansion, and trigonometric functions are an important part of the course. Algebra II prepares students for more difficult mathematical concepts and content. Pre-Requisites: Algebra I

Trigonometry

This course begins by covering basic fundamentals of trigonometry. It accelerates quickly into more advanced trigonometry applications that encompass principles of science, technology, and engineering. Students will explore concepts from radian and degree measurement to unit circles, trigonometric functions, and sine and cosine functions. Pre-Requisites: Algebra I; Geometry; Algebra II

Delivery Modes: Virtual Classroom (VC) Blended Classroom (BC) Asynchronous Classroom (AC)
Advanced Statistics
This course teaches methods and terminologies of descriptive and inferential statistics. Students who complete this course will be able to conduct their own analyses of standard one-sample or two-sample data sets, follow statistical reasoning, and read statistical reports with understanding. Additional topics include association and regression, causation and evidence, and probability. Introductory topics in linear regression and analysis of variance will also be discussed. This course uses college level materials, and students are encouraged to take the course concurrently with Pre-Calculus or Calculus when possible. **Pre-Requisites:** Algebra I; Algebra II; Letter grade of B or higher in Algebra II or strong recommendation of teacher

Pre-Calculus
In this textbook-free course, students will understand and apply concepts, graphs, and applications of a variety of families of functions, including polynomial, exponential, logarithmic, logistic, and trigonometric. An emphasis will be placed on the use of appropriate functions to model real-world situations and solve problems that arise from those situations. Graphing functions by hand and understanding and identifying the parts of a graph is also a major focus of Pre-Calculus. The second half of the course focuses on introductory trigonometry and graphs, trigonometric equations and identities, analytical trigonometry, sequences and series, conic sections, and an introduction to calculus. **Pre-Requisites:** Algebra I; Geometry; Algebra II

Calculus
Students in this course will study the calculus of a single variable. It is a rigorous mathematics course that builds on the student’s understanding of polynomial, trigonometric, exponential, and logarithmic functions. These functions are studied intensely through an investigation of limits, derivatives, and integration. Emphasis is placed on real-world applications that utilize a numerical, graphical, and analytical approach. **Pre-Requisites:** Algebra I; Geometry; Algebra II; Pre-Calculus

AP Calculus AB
AP Calculus AB is an accelerated course meant to prepare students who plan to take the Advanced Placement Calculus AP exam. Emphasis is placed upon the multi-representational approach to calculus where problems and their solutions are explored and interpreted graphically, numerically, analytically and verbally. Students will be required to explain their answers in written form and will be asked to compare their written responses to the AP grading rubric. Students will develop a deeper understanding of very small and very large numbers, use representations to model and interpret mathematical phenomena, use integrals to solve differential equations, solve real world exponential growth and decay problems, and compute volumes of irregular shapes. In addition, students will judge the meaning, utility, and reasonableness of the results of symbol manipulation, including those carried out by technology. This course is a College Board-approved Advanced Placement course and AP Calculus AB covers all required College Board topics. **Pre-Requisites:** Algebra I; Geometry; Algebra II; Pre-Calculus; Letter grade of A recommended in all previous mathematics courses.

Consumer Mathematics
Consumer Mathematics shows students how math is used in everyday life. Students will review addition, subtraction, multiplication, and division of whole numbers, as well as fractions and decimals. The course instructs students on how to perform practical tasks such as calculating earnings from a job, shopping for and working with food, buying clothing, managing a household, purchasing and maintaining a car, and understanding interest rates. Consumer Mathematics teaches problem solving strategies and alternate methods of computation to solve a wide range of consumer problems. Consumer Mathematics is a textbook-free course. **Pre-Requisites:** None

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### Delivery Mode
- **Advanced Statistics:**
  - Delivery Mode: VC
  - Credit: VC: 1.0
  - NCAA Approved

### Delivery Mode
- **Pre-Calculus:**
  - Delivery Mode: VC; BC
  - Credit: VC: 1.0
  - BC: 1.0
  - NCAA Approved

### Delivery Mode
- **Calculus:**
  - Delivery Mode: VC
  - Credit: VC: 1.0
  - NCAA Approved

### Delivery Mode
- **AP Calculus AB:**
  - Delivery Mode: BC
  - Credit: BC: 1.0
  - NCAA Approved

### Delivery Mode
- **Consumer Mathematics:**
  - Delivery Mode: VC; BC
  - Credit: VC: 1.0
  - BC: 1.0
Practical Mathematics

Practical Mathematics focuses on the mathematics involved in making wise consumer decisions. Students will explore the many ways in which mathematics affects their daily lives. The course begins by covering paychecks and wages, taxes, insurance, budgets, bank accounts, credit cards, interest calculations and comparison shopping. Students will also study vehicle and home purchasing, investing and basic business mathematics concepts. Budgeting, record keeping, and living expenses are an important part of the course. Practical Mathematics is a textbook-free course. Pre-Requisites: None

Business Mathematics

In Business Mathematics, students discover a variety of basic mathematical concepts and tools for real-world mathematical application including algebraic equations, formulas, operations using fractions, decimals, and percentages. This course shows students how to work with percentages to solve application problems and how to research investment and insurance options. Students learn to graph a function from an equation, and work with ratios and proportions. Additionally, students explore the proper methods of preparing and analyzing income statements and balance sheets. They also study the ways in which to calculate real estate loan payments, and learn to read and interpret graphs to represent data in the business world. This course also discusses mean, median, and mode as it relates to the distribution of data. Business Mathematics is a textbook-free course. Pre-Requisites: Algebra I

Financial Literacy

Financial Literacy is designed to help students budget, keep a checkbook and filing system, deal with debt and credit, and become wiser consumers. Students will learn how money and the dynamics surrounding it affect their relationships, their lifestyles, and their retirement. Financial Literacy is a textbook-free course. Pre-Requisites: None
Science

Three credits in Science, including Biology, are required for graduation.

Biology

Biology covers a wide range of concepts in the field of biology. Students will study the cell, including cell structure and function. The concept of the cell is extended, and students explore Mendelian genetics and how humans inherit traits. In addition, the course examines the structure and mechanisms of DNA, as well as the role of biotechnology in today’s society. Students also explore the theory of evolution, including early ideas, how populations evolve, and the history of life on Earth. Students discuss the concept of ecology, where they learn about different principles of ecology, interactions that occur within ecosystems, the biosphere, and how humans have impacted ecosystems thus far. Upon completion of this textbook-free course, students will be required to take the Keystone Biology exam. Pre-Requisites: None

AP Biology

AP Biology serves as an equivalent to a two-semester introductory college biology course. Students enrolling in this course must have taken Biology in a previous school year; it is not a first year Biology course. Students taking this course may be eligible for college credit upon successful completion of the course and a sufficient score on the AP Biology exam administered by the College Board. This course differs from a traditional high school biology course by the resources used, the range and depth of topics covered, laboratory work, and the time and effort required by students. AP Biology covers the four big ideas in biology, evolution and cellular processes, energy, and communication, genetics and information transfer, and interactions. Students will understand how the process of evolution drives the diversity and unity of life. Biological systems that utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis will be examined. Students will develop an understanding of how living systems store, retrieve, transmit, and respond to information essential to life processes. Finally, students will be able to describe how biological systems interact, and these systems and their interactions possess complex properties. This course is a College Board-approved Advanced Placement course. Pre-Requisites: Biology; Chemistry or Physical Science; One additional science course; Letter grade of B or higher in all previous science courses.

Earth Science

In Earth Science, students learn the importance of scientific inquiry and how to communicate the results of scientific investigations. They study the formation of the universe, including the Big Bang Theory, the motions of celestial objects, and stellar evolution. Students learn about the sun, planets, and the movements of Earth. Earth Science also includes the study of weather, the water cycle, the atmosphere, and pollution. In addition, the course covers the physical structure of the Earth and Earth’s tectonic system, including the rock cycle, tectonic activity, mountain building, weathering, and erosion. Students will study geologic history, including the evolution of Earth’s atmosphere, the geologic time scale, and the fossil record. Earth Science explores natural resources and the effects of human population on those natural resources. The course concludes with a discussion of human society and its interconnectedness with the Earth’s environment, how science and technology work together, and the technological design process in earth science applications. Earth Science is a textbook-free course. Pre-Requisites: None

Environmental Science

Environmental Science introduces students to the scientific method, terrestrial and aquatic ecosystems, biomes of the world, trophic interactions, and nutrient and chemical cycles. Students analyze the human impact on the environment and ways to reduce negative consequences. In this textbook-free course, students will investigate environmental issues first hand and use their discoveries to make environmental decisions for themselves. Pre-Requisites: None
Tips for being a successful PA Cyber high school student.

• Attend each virtual, blended, or asynchronous class every day.
• Participate in class activities and discussions.
• Complete all required reading, assignments, and homework each day.
• Share the work that you complete each day with your parent or guardian.
• Keep close contact with your teachers and Academic Advisor.
• Follow the proper pacing for each of your courses.
• Attend all Keystone testing as required.
• Get involved with PA Cyber clubs and other activities.
**Physical Science**

Students enrolled in Physical Science are introduced to the principles of chemistry and physics so that they may develop a better understanding of atoms and chemical and nuclear interactions. Students explore properties and states of matter. They will investigate chemical bonds and reactions as well as the development of the periodic table. An outline of modern atomic theory and organic and nuclear chemistry are also discussed. Additionally, students study Newton’s laws of motion while considering the interactions between motion, forces, energy, and thermodynamics. Physical Science is a textbook-free course. **Pre-Requisites:** Algebra I

**Physics**

Physics students begin their studies by exploring measurement and motion. Students will explore scientific notation, significant digits, gravity, Newton’s laws of motion, circular motion, and the International System of Units. Mathematical concepts such as graphing and trigonometry will be applied in order to solve physical problems during these units of study. During the second half of the course, students will further their exploration of mechanics while exploring harmonic motion, wave properties, and optics. Students will learn the basics of thermodynamics and fluids and explore the principles of electricity and magnetism. The area known as Modern Physics, which includes topics such as the photoelectric effect, nuclear science, and relativity, concludes the course. Physics is a textbook-free course. **Pre-Requisites:** Algebra I, Algebra II

**Chemistry**

Chemistry gives students a deeper understanding of the world around them as they investigate how chemistry is involved in everyday life. Students explore fundamental chemistry content and concepts, including the metric system, the periodic table, atomic structures, bonding, chemical reactions, and nuclear reactions. They apply their knowledge and science process skills through labs that use common, household objects in order to explore the practicality of chemistry. This course requires students to use fundamental algebra skills to solve problems. Course topics include the atom, defining matter, acids and bases, polar bonds and molecules, solutions, ionic bonding, thermochemistry, and nuclear reactions. Chemistry is a textbook-free course. **Pre-Requisites:** Biology; Algebra I

**Astronomy**

In Astronomy, students begin by discussing basic astronomical concepts and discoveries throughout history. They take an in-depth look at the first moments of the universe by studying the Big Bang. From there, they investigate the evolution of the universe, beginning with the first atoms and moving on to explore elements, stars, solar systems, and galaxies. Students gather information to determine if there is a possibility of life on other planets and in other solar systems. In this textbook-free course, students analyze the major space missions that have led to the modern study of cosmology, and they explore the possibilities of where this field may take scientists in the future. **Pre-Requisites:** None

**Bioinformatics**

Bioinformatics was developed by Better Educators of Science for Tomorrow (B.E.S.T.) of the Pittsburgh Supercomputing Center at Carnegie Mellon University. Students will discover how concepts from math, biology, and chemistry are applied to the functions of DNA, RNA, and protein production and function. In addition, students will learn how to make use of the data generated by the Human Genome Project. Students will learn how to search and compare genetic data from different organisms utilizing several DNA and protein identification programs currently being used in medical, forensic, agricultural, and other life science research. The goal of this class is to introduce students interested in pursuing a degree in life sciences to possible career fields that are just beginning to evolve. Bioinformatics is a textbook-free course. **Pre-Requisites:** Algebra I; Biology; Chemistry
**Cutting Edge Science**

This textbook-free course explores popular topics in the biological sciences, and will offer students the opportunity to utilize analytical science, biology, and anatomy. Cutting Edge Science is a course that requires scientific research, and will involve in-class discussions and presentations. Students will learn about new trends in research and technology and how each of these fields impact their everyday life. Students will discuss topics such as health and disease within a population with students learning how to utilize data to solve real world issues. Additional topics include sports medicine and forensics. New cutting edge sciences and technology will also be explored as they arise in current events. **Pre-Requisites:** Biology

**Introduction to Engineering**

The Introduction to Engineering course provides students with an overview of the field of engineering and the primary processes and procedures used by engineers. Students will explore engineering careers and their impacts on society, and they will learn how mathematics and science are used in the field of engineering. They will examine different engineering disciplines, the engineering design process, and different engineering styles and methods used in the field. Students will take part in hands-on learning as they work through a real-life design problem and solve it through the steps of the engineering design process. They will then create a presentation to demonstrate their solution to the design problem. Introduction to Engineering is a textbook-free course. **Pre-Requisites:** Algebra I, Geometry

**Marine Science**

In Marine Science, students will discover the vast network of life that exists beneath the ocean’s surface and study the impact that humans have on the oceans. Major course concepts include animals of the sea, habitats and ecology, plankton, plants, and algae, and life at extremes. This course will also explore intelligence in the seas and futures in Marine Science. About 70% of the Earth is covered by water and even today, much of the world’s oceans remain unexplored. This course will help students begin to understand the importance of our oceans and the life and systems they contain. **Pre-Requisites:** None

**Medicine**

This textbook-free course provides students with an introduction to healthcare with an emphasis on modern, clinical medicine. Students review basic human anatomy and physiology by studying the various body systems, and then study major health concerns affecting people in the U.S. and the world. This comprehensive course examines such topics as nutrition, infectious diseases, cancer, traumatic injuries, and healthcare career opportunities. Additional topics in this course include medical ethics, reproductive rights, and mental illness. This course is intended for students in grades 11 and 12 and is recommended for students interested in pursuing a career in the medical field. **Pre-Requisites:** Biology

**Renewable Energy**

The earth’s population is growing rapidly, and we need to find new, innovative ways to ensure that we are able to provide for our global energy needs. Students will look at the reasons why sustainability is important, take a balanced and evidence-based look at climate change, and learn new ways that we can harness renewable resources. In this textbook-free, semester-long class, students will look at a variety of topics surrounding renewable energy sources including wind, solar, hydro, and bio energies. Additionally, students will investigate the effect of different energy processes on the environment and ecological cycles. The course will wrap up with a look into practices to promote conservation of biodiversity. **Pre-Requisites:** None
Social Studies
Four credits in Social Studies are required for graduation.

Civics
Civics offers students an introduction to the foundation of the democratic government of the United States and the basic principles of the judicial system. In this course, students explore what it means to be a citizen, as well as the structure of the legislative, executive, and judicial branches of the United States government. Students also look at the characteristics of state and local governments throughout the country to examine the organization and responsibilities of these branches. In this textbook-free course, students explore the components of the American economy, including its foundations and how it interacts with other economies of the world. Additional topics addressed in this course include the party system, international relations, citizen rights and responsibilities, local governments, the function of government, the free market, and the United States Constitution. Pre-Requisites: None

American History
American History covers the discovery, development, and growth of the United States. The first half of the course is a survey of the struggle to build the United States of America from the colonial period to the beginning of the twentieth century. By means of reading, analyzing, and applying historical data, students come to appreciate the forces that shaped our history and character as an American people. Not only are the topics of American history discussed, but students also explore research methods and determine accurate sources of data from the past. Knowing the facts and dates of history are just the beginning: each student must understand how history affects them. The second half of American History begins with a study of American life before the 1929 Stock Market crash and how the Roaring Twenties influenced society in the late 19th through early 20th centuries. Students will examine the causes and consequences of the Great Depression and move into a detailed study of World War II with an emphasis on America’s role in the conflict. The course continues with an analysis of the Cold War struggle and America’s rise as a superpower. The Civil Rights and Women’s Rights movements, pollution and the environment, and American domestic and foreign policy will be examined. This textbook-free course concludes with a summary of current events and issues. Pre-Requisites: None

World History
World History allows students to investigate significant events, people, and places from prehistoric to modern times and consider their historical relevance. In this wide-ranging course, students learn how the world and its inhabitants were shaped over time, and, in the process, gain a better understanding of the role that geography plays in world history. Topics will include the ancient world, medieval Europe, the age of exploration, the age of revolution, Imperialism, the emergence of new nations, and the modern world. World History is a textbook-free course. Pre-Requisites: None

AP United States History
Advanced Placement United States History will provide students with a complete and thorough understanding of the ‘full circle’ nature of American History. By design, American History is inherently a story of cause and effect. Students are expected to be involved in the learning process and committed to putting forth their best effort. This entails reading and writing on a daily basis, in class, as well as independently. American history will be approached in a multifaceted method. Students will explore concepts in an analytical manner and emphasis will be placed on achieving a ‘true transfer of knowledge’. There will be extensive use of technology throughout the class when it assists in the development and understanding of the concepts of American history. A student may place out of an introductory college history course based upon completion of the course and a satisfactory score on the AP United States History exam. This is a College Board-approved Advanced Placement course. Pre-Requisites: Letter grade of B or higher in all previous social studies courses
**American Explorations**

In American Explorations, students will have the opportunity to delve deeper into important parts of United States history, exploring the narratives of people and places previously studied in other courses in greater detail. Topics covered in American Explorations include, but are not limited to the Civil War, World War I, The Great Depression, World War II, and the Civil Rights Movement. Students will participate in class discussions, design projects, and give class presentations. This class is recommended for 11th and 12th grade students and is writing and project intensive. **Pre-Requisites:** American History

**Cultural Explorations**

Cultural Explorations will examine culturally significant time periods in World History. Each class topic will be covered in depth for a nine-week period. Students will study Ancient Greece, Ancient Rome, The Ancient Americas (Maya, Aztec, and Inca), and The Middle Ages. In addition to reading historical fiction, students will be introduced to the time periods by reading biographies, classic literature, and primary source documents to highlight important people and events. Students will participate in class discussions, design projects, and present their work to peers. Cultural Explorations is a textbook-free course. **Pre-Requisites:** None

**Economics**

Basic economic theory and its impact on everyday life are the foundation of this course. Students will learn about basic economic features such as scarcity, opportunity cost, efficiency, and trade-offs, as well as the factors of production. Major course topics in this textbook-free course include wealth distribution, financial markets, multinational corporations, money and banking, supply and demand, and economics and democratic development. Economics is an upper level course suggested for 12th grade students. **Pre-Requisites:** None

**Ancient History**

Ancient History explores political, cultural, and economic themes that occurred from the beginnings of known history in ancient civilizations throughout Africa, the Americas, Asia, and Europe to the 1500s. Other topics discussed in the framework of Ancient History will be war, art, science and technology, religion and philosophy, and daily life through both individual narratives and collective experiences. These themes and topics will be considered to develop knowledge about the past and to relate ancient history to the development of the world today. **Pre-Requisites:** None

**World Cultures**

World Cultures explains global geography, history, and culture to students. In this course, students study the major political powers of each era and discover how the world's earliest civilizations developed through the Age of Exploration to the Industrial Revolution. In the second half of the course, students examine a world at war, navigating the Great War, nationalist movements in Russia and Asia, World War II, the Cold War, Third World independence, and struggles for democracy. The course closes with discussions of current global issues such as terrorism, technology, economy, pollution, and renewable energy. World Cultures is a textbook-free course. **Pre-Requisites:** None

**World Geography**

In World Geography, students will learn the basic skills of map reading and development, geographic technology, and the recognition of geographic themes to make sense of the world. The course examines world regions including the nations, people, and cultures of each region. This textbook-free course explores the Americas, Europe, Eurasia, Central and Southwest Asia, South Asia, Africa, East Asia, and the Pacific. **Pre-Requisites:** None
**African American History**

African American History introduces students to the study of African American life, culture, and history. This course covers enslavement, life as a slave, and emancipation. It also discusses African American involvement in major wars, the civil rights movement, major societal contributions, and life in modern society. Students will examine the Nat Turner Rebellion, Jim Crow laws, civil rights amendments to the Constitution, the Harlem Renaissance, the growth of civil rights organizations, and the election of Barack Obama to the Presidency. This textbook-free course describes the influential role of African Americans in U.S. History. **Pre-Requisites:** None

**Psychology**

In Psychology, students explore the science of explaining and controlling human behavior. Psychology plays an integral part in everyday life because all decisions, relations, and emotions are closely tied to behavior and genetics. Within this course, students look at behavior and consider prominent psychologists who have made impressive and monumental discoveries through testing, research projects, and proving theories. Students study everything from the anatomy of the brain to psychological disorders. This textbook-free course includes units on thinking and intelligence, sensation and perception, identity and personality, psychological methods, therapy, and social psychology. **Pre-Requisites:** None

**Sociology**

In Sociology, students explore the various topics and sociological terminology necessary for understanding and exploring the field. Students investigate major sociological perspectives and the famous sociologists who invented and contributed to them. Additionally, students determine how researchers perform valid and reliable sociological studies. This course is ideal for students who are interested in pursuing post-secondary careers in sociology, psychology, law, or other social sciences. Sociology is a textbook-free course. **Pre-Requisites:** None

**Pennsylvania History**

In Pennsylvania History, students explore the geography, history, culture, and government of Pennsylvania. This textbook-free course examines Pennsylvania’s role in the founding of the United States, the Civil War, and the Industrial Revolution. Students will also study the state’s significance in modern times. **Pre-Requisites:** None

**1960s America**

Have you ever wondered what life was like in the 1960s? This textbook-free course allows students to experience what life was like during this exciting and monumental decade. 1960s America will cover the social, political, and cultural movements and changes that occurred during the decade. Some of the topics explored within this course include the transition from the 1950s Post-War boom to the 1960s Radical Movement, the Vietnam War, and civil rights. This course also focuses on many significant headlines of the 1960s, which include the assassinations of Robert Kennedy, President John F. Kennedy, and Dr. Martin Luther King, Jr., as well as the Space Race, music of the 1960s, and the effects of pop culture. Through this course, students look at different historical events and determine how these events impacted American citizens during this decade and afterwards. This course delivers in-depth content on the 1960s and gives each student a realistic perspective of this decade. **Pre-Requisites:** None

**Law**

In this course, students examine citizen obligations to law enforcement, the court system, and the rules and regulations that all Americans are expected to uphold. They explore the terminology and the regulations that structure and control society. Students study different types of crime and the law enforcement powers that are put in place to regulate and diminish overall crime. Students who are interested in a law career will benefit from learning the law and justice terminology presented in this course. Major units in this textbook-free course include the powers of law enforcement, court systems, family law, criminal law, civil law, and the origins of law. Please note that this course addresses sensitive topics such as assault, drug abuse, and how those issues relate to the law. **Pre-Requisites:** None
Political Science

In this course, students will be introduced to political science as an academic discipline. Students discover the origin, creation, and function of different political systems within the United States and across the globe. Students explore political theories, such as systems theory and the social contract theory. Additionally, students examine economic concepts, how countries interact with one another, international governmental organizations and nongovernmental organizations, and the role of media in politics while developing skills in research methodology. Major units in this textbook-free course include concepts of political science, political theories, systems of government, political culture, comparative politics, economics, and political methodology. Pre-Requisites: None
Fine Arts
Two credits in Fine Arts are required for graduation.

American Music Appreciation
Music in America has a rich history. In American Music Appreciation, students will navigate this unique combination of culture and creativity that spawned jazz, rock and roll, and hip hop. From early church music to 21st century pop, students will gain a new understanding of the key developments, people and genres in American music. Some lessons in this course may contain mature themes and subject matter.
Pre-Requisites: None

Art and Visual Culture
In order to provide a comprehensive study of art, students in Art and Visual Culture analyze and interpret artwork created by others, examine the concepts of aesthetics and art criticism, and explore the practical application of art in a variety of careers. Art and Visual Culture, a textbook-free course, spotlights drawing as a form of communication and introduces students to the elements of art and principles of design through hands-on activities. Students sharpen their observation skills using a variety of art media. Through practice and experimentation, students become adept at using basic techniques and processes to depict the world around them and express their thoughts and feelings.
Pre-Requisites: None

Art History
Art History, a textbook-free course, is an introductory art course that focuses on the art and architecture of the ancient Near East and Europe. The course begins with a brief overview of the fundamental methods of art including the meaning, purposes, and styles of art; the art elements and principles of design; and the various media used to create artwork. It then follows a chronological timeline. The timeline shows how art and world events have influenced each other from the prehistoric period to the early medieval era. There is a large focus on the art and architecture of Europe and North America. Particular emphasis centers on viewing works of art within their historical and cultural context so that students learn to understand how these key achievements relate to the past and present world.
Pre-Requisites: None

Art History I: 30,000 BCE - 1900 CE
Interpreting the origins of art from the earliest cave paintings gives a student a unique perspective on their own work. In Art History I, students will analyze various art forms including painting, sculpture, and architecture over changing periods of time. Students will build their own cultural inventory studying the social, political, and religious movements that affect art. Art History I is intended for students who are interested in learning more about western world history, the history of visual arts, or both. This course gives students a very thorough yet comprehensible introduction to art history through the study of visual arts from Prehistoric times through 1900. Information is learned through various means including hands-on creation of original art inspired by application of information from the course. This course covers many works of fine art over the centuries. Some artists and their works could not be represented without showing partial nudity or suggestive content.
Pre-Requisites: None

Art History II: 1901 - Present
Appreciating the cultural context of art in the modern era relies on analyzing artistic principles, abstract symbolism, and design techniques. Students in Art History II will explore the social, political, and religious trends from Post-Impressionism to street art and understand the formal and conceptual issues that foster changes in art throughout history. This course covers many works of fine art over the centuries. Some artists and their works could not be represented without showing partial nudity or suggestive content.
Pre-Requisites: Art History I: 30,000 BCE - 1900 CE
Arts and Society I: 4000 BCE - 1750CE

Arts are not created in a vacuum. They are the result of the people and cultures that create them. Arts and Society I takes the student on a chronological walk through history, stopping along the way at a variety of historical, political, cultural, and artistic key moments. From 4000 BCE to 1750 CE, the student analyzes the relationship between societal culture and the arts being produced. This course covers time periods during world history that are controversial and full of change. Many sensitive subjects are covered, including politics and religion. Pre-Requisites: None

Arts and Society II: 1751 - Present

How do the people and the cultures of society affect the art around them? Students in Arts and Society II step into history and explore key moments from 1751 to the present in politics, culture, and art. Arts and Society enhances students’ global awareness as they learn to interpret these significant events and their impact on the arts. This course covers time periods during world history that are controversial and full of change. Many sensitive subjects are covered, including politics and religion. Pre-Requisites: Arts and Society I: 4000 BCE - 1750CE

Choreography and Choreographers

Choreography is a statement about society, culture, and history. Students in Choreography and Choreographers will gain insight into the creative processes involved in choreography and will trace the work of influential choreographers from the 16th century to the present. Some lessons in this course may contain mature themes and subject matter. Pre-Requisites: None

Dance Around the World

Throughout human history, some form of dance has evolved in every world population. Students in Dance Around the World will explore dance as a ritual, a religious, and a performed art from the primitive ages through the 19th century. Historic and cultural perspectives will be examined to study those influences on the work of today’s choreographers and dancers. Pre-Requisites: None

Dance in America

The history of American dance is complex and rich with innovation. Dance in America takes the student on a journey through the social and political climates that fostered its development. From early ballet companies to Broadway and music videos, numerous choreographers, artists, and dancers have contributed to the evolution of American dance. Pre-Requisites: None

Digital Photography

Capturing a special moment in a photograph is powerful. In Digital Photography, students will study the history of photography as well as the basic operations of a digital camera. As they are introduced to different styles of photography and photographers, students will begin to develop their skills as well as their own voice in photography. This course is for anyone who wants a comprehensive overview of photography, beginning with photography standards and equipment. In this textbook-free course, students will explore the history of photography, photographers who influenced the field, technological advancements and their impact on the art. Students will also learn how to use a digital camera and explore the elements of lighting, composition, printing, resizing, and compiling a portfolio of work. Pre-Requisites: Some previous knowledge and understanding of photography or a strong desire to learn

Explorations in Dance I

Grace, beauty, and the pursuit of excellence are hallmarks of ballet and modern dance companies. In Explorations in Dance I, students will study the foundations of the ballet style from clothing and training to rehearsal and performance. Students will meet the artists on stage and behind the scenes who create the magic of ballet and modern dance. This course is for those interested in exploring the world of dance as it covers basic knowledge needed to understand how dance started and how it has evolved over time. Students will gain a foundation for study in dance, choreography, or theatrical productions. Pre-Requisites: None
Explorations in Dance II

The bright lights of Broadway have showcased many dancers’ talents. Students in Explorations in Dance II will be introduced to the audition process, learn about the roles of agents and unions, as well as explore some of the most exciting Broadway shows. This content is intended for students who want to expand upon what they learned in Explorations in Dance I, which covered basic dance techniques, warm-up strategies, the principles of healthy dance practices, and different dance philosophies. Explorations in Dance II expands and moves on to new dance techniques, along with the dance philosophies and innovations of notable choreographers, as well as the influence of specific Broadway shows and performances. The basics of jazz and tap dance are introduced, and the impact that dance has on musical theatre will be discussed. **Pre-Requisites:** Explorations in Dance I

Explorations in Film and Television

The culture of cinema and broadcast television tell a unique story of American history and innovation. Students in Explorations in Film and Television will be introduced to the technology, industry icons, and stars of the big and small screens. By studying and writing about film and television, students will analyze technological and cultural trends and understand how to be an informed viewer in the future. **Pre-Requisites:** None

Explorations in Media Arts

From television to video games, media is everywhere. In Explorations in Media Arts, students will study the art behind the media, how it is created, the history of media, and the legal and ethical issues that arise while creating media arts. Students will apply critical thinking skills to creating web, video, animation, and graphic media projects. **Pre-Requisites:** None

Explorations in Music I

Music can be simple, yet so complex. Students in Explorations in Music I study the basics of music, instrument families, music notation, and organization. By analyzing the ways music is connected to other disciplines and industries as well as training on basic terminology, students will progress in their understanding of music. **Pre-Requisites:** Ability to read music

Explorations in Music II

How do you understand the music of a symphony or recognize a song from Japan? In Explorations in Music II, students will study the different forms of music and their instrumentations. Students are introduced to music from around the world and given a comprehensive overview of Western music from ancient times to the present including art, folk, and popular genres. Students will be able to identify instruments and music from different cultures and different genres. This course is intended to help students become well-rounded musicians and listeners. **Pre-Requisites:** Ability to read music; Explorations in Music I

Explorations in Music

In Explorations in Music, students will discuss what music is, why we listen to music, and how music affects us. Students will study the basic elements of music, instrument families, active and passive listening, and how to read notes and rhythms. The forms and textures of different musical ensembles will also be examined. Students will learn about the development of different musical styles over the course of music history through exploration of different time periods and composers of music. The connections between music and other fields, such as math, politics, dance, theatre, science, will also be discussed. By analyzing the ways music is connected to other disciplines and industries as well as learning basic terminology, students will progress in their understanding of music. Lastly, we will take a look at the different careers in music. This textbook-free course is an introductory level course. **Pre-Requisites:** None
Explorations in Theatre I

It’s enjoyable to watch a well-done performance. Explorations in Theatre I helps the student understand the effort that goes into that performance. Through the perspective of the performer, the playwright, and the director, students will gain an appreciation of the artists who have contributed to both musical and non-musical performances and an understanding of the world of the actor. Major topics of study in the course include the lives and works of great playwrights such as William Shakespeare and Arthur Miller, major theatrical works and their ties to culture and humanity, the process of scriptwriting and revision, and the roles and duties of individuals in a theatrical production. Students will also have the opportunity to write, revise, and analyze a script. This course is intended to be introductory. Pre-Requisites: None

Explorations in Theatre II

Behind the actor are dozens of artists enhancing that performance. Students in Explorations in Theatre II will build a vocabulary of the people and the equipment that work behind the scenes in the theatre. This is a course for those who are interested in gaining further knowledge of all the technical aspects of theatre. Understanding the business aspects of producing a performance as well as the artistic considerations in technical production enhances future audience members’ appreciation for the theatre. Major topics of study in the course include sounds and light editing; the roles of production and stage managers; the dramaturge; costume, hair, and makeup design; set design; and prop construction. The course concludes with the student writing a script that incorporates all technical components of theatre. Pre-Requisites: Explorations in Theatre I

Exploring Cinema

Exploring Cinema, a textbook-free course, introduces students to filmmaking and cinematic productions. The course explores the technology used to create a film and begins to build an aesthetic appreciation of films for the student. Students also are exposed to media art and the ethics of media creation to give a wider perspective on the different ways material is presented. Pre-Requisites: None

Fashion Design

Fashion Design is an advanced course for students interested in learning the intricate process of how the fashion system works. Students will study the fashion business in sequential order from concept to consumer. They will examine all of the processes involved in the industry from producing raw materials, apparel, and accessories to the retail stores that sell fashion merchandise to the public. Students learn that the decision-making process is complex and not just about the latest designers, styles, or trends of an era. In this course, students will explore the history of fashion, including the looks and creations of every era. They will discover the equipment, tools, and fabrics used to create fashion, and they will learn how technology is used in fashion. Students have an opportunity to express themselves and their style through the creation of their own fashion design sketches and mood boards. In this textbook-free course, students will learn fashion terminology and how to forecast new and upcoming fashion trends. Pre-Requisites: None

Introduction to Dance

What inspires choreographers and dancers? Students in Introduction to Dance will study the main elements of dance: space, time, and energy. They will discover how a choreographer uses these elements to create a dance piece, and explore how dancers respond with their own creativity. This course is intended for students who are interested in dance, but may also be wondering if it’s the art form “for them.” Introduction to Dance looks over many topics relating to dance, including several famous choreographers, common and popular dance forms historically and in modern times, as well as different kinds of dance techniques, and stage effects. This course will teach students many of the basic steps of dance and give them opportunities to try it out for themselves. Pre-Requisites: None
Music Appreciation

Music Appreciation exposes students to a large variety of music. Students will be able to explain personal music preference, and identify how music is impacted by technology, social values, and daily life of the composers. Students develop an understanding of the composer’s intent and the ability to rationalize personal interpretation of music works. Similarities and contrasts in music throughout the eras are identified as well as how previous compositions impact future compositions. In this intermediate-level textbook-free course, students will study music from the Medieval, Renaissance, Baroque, Classical, and Romantic Eras. They will also explore 20th century and contemporary music and its impact.

Pre-Requisites: None

Music Appreciation

Music Appreciation introduces students to the theory and history of music. The course begins by studying musical form, texture, rhythm, and expression. Students will then explore musical genres from classic to contemporary. Students will learn to identify instruments, musical pieces, musical periods, and musical styles. Popular forms of American and world music, including folk, jazz, blues, modern, and forms of rock and roll will be examined. Students will grow in their understanding of music as they examine stylistic eras, important composers, and global musical perspectives. This textbook-free course is an introductory level course. Pre-Requisites: None

Music Around the World

There is a vibrant chord of music that runs through every culture in the world. Students in Music Around the World will explore the music of Africa, Asia, Europe, and the Americas. From Finland to Mongolia to Zimbabwe, students will study the impact a country’s history and societal values have on the music of that nation. This course studies the various musics throughout the world and their impacts on other cultures, all while touching on the geography of the regions and the instruments used. Pre-Requisites: None

Music Theory I

Learn to understand the beautiful language of music! In Music Theory I, students will learn the “alphabet” that makes up music, including music notation. How to read music and to follow the structure, including pitch, rhythm, harmony, scales, keys, and chords, empowers any avid music listener or future musician and is the cornerstone of this course. The study of music theory will help any musician improve as a player, a thinker, and a listener. The ability to understand and reflect upon what one is playing and listening to is invaluable. This course also begins to develop the students’ musical ear. This advanced-level course covers higher-level concepts and would be appropriate for students who are more serious about their music study. Pre-Requisites: Explorations in Music I or previous music study or a strong desire to learn
Music Theory II

In Music Theory II, students will elevate music comprehension by understanding the concepts and rules of creating music. Music Theory II is both theoretical and practical, and encompasses advanced harmonic and rhythmic structures, instrumentations, and key changes. Through sight and sound, students will deepen their appreciation of music with a grasp of music theory. The study of music theory will help any musician improve as a player, as a thinking and understanding musician and listener. The ability to understand and reflect upon what one is playing and listening to is invaluable. This course also begins to develop students’ musical ear. This advanced-level class particularly focuses on harmonic function and analysis. **Pre-Requisites:** Music Theory I

Photo Manipulation

Manipulating and altering an image to create a new work allows for a new interpretation. By using advanced software tools, including Photoshop, students in Photo Manipulation will learn strategies for creating complex imagery. Students will acknowledge the principles of design, editing and repairing still images or creating unique new concepts in their art. Photo manipulation skills are a basic requirement for many careers in art, advertising, media, advocacy, education and design—just to name a few. This course not only prepares the students to be competitive in the technological skills required for contemporary art, photography and design; it also gives them basic frameworks for design, editing, and composition. Students will become familiar with the field and with the options available to them. **Pre-Requisites:** None
Photojournalism

A powerful image can tell an eloquent story without any words. Students in Photojournalism will meet some of the pioneers who set the standards for this unique way of storytelling. As they study the principal types of photojournalism and the ethical responsibilities a photojournalist has behind the lens, students will develop their own storytelling skills through their writing and their photographs. This course is designed for students interested in photography and photojournalism, including those who intend to pursue a career in photojournalism. **Pre-Requisites:** None

Studio Arts I: Techniques and Tools

Creativity flourishes with the right foundation. In Studio Arts I, the student artist will lay the groundwork for their art by practicing unique exercises to develop drawing, painting, and mixed media skills. Incorporating their knowledge of composition, design, colors, and forms, students will use the appropriate materials and tools to work from realism to abstract. This course is for students beginning a serious study of studio art techniques. A foundation of knowledge and skills will help students grow as artists while building a foundation for further study. **Pre-Requisites:** None

Studio Arts II: Concepts and Expressions

Developing a unique personal style and creating complex imagery is possible for any artist. Students in Studio Arts II will engage in techniques that take their work to a more sophisticated level. Analyzing other artists and their works will help the student artist find deeper meaning and new interpretations to create a cohesive result. **Pre-Requisites:** Studio Arts I: Techniques and Tools

The Study of Contemporary Music

The Study of Contemporary Music introduces and explores the roots of contemporary American music. This course will focus on the social, technological, and artistic trends that helped create and shape music of the 1920s through present time. Learners will explore various genres and periods of music, including the early development of rock and roll in the 1950s, the evolution of popular music, the British invasion of the 1960s, and the many “mutations” of rock music in the 1970s. The second half of the course continues to explore the roots of contemporary American music. After completing this course, students will have gained a deeper understanding and appreciation for various forms of contemporary music, ranging from rock to jazz to country. Students will explore the history of each form and the role of music in the modern world. **Pre-Requisites:** None

The World of STEAM

Each aspect of the arts relies on science and technology. The arts, science, and technology are intertwined, now more than ever. In The World of STEAM, students will learn why the eye sees color, how a dancer uses gravity, and what makes a sound wave travel. Understanding the science behind the arts will elevate students to a new level of creativity. **Pre-Requisites:** None

Theatre

Theatre invites students to explore the history of theatre and the basic elements of stage production. This textbook-free course highlights the technology used to create early and modern stage productions and the basic fundamentals of acting. Theatre provides students with a look at production elements such as stage lighting, sound, costume, and makeup. Students learn to apply voice and gesture skills in pantomimed and improvised scenarios, and they receive an overview of the responsibilities of the producer, director, and technical crew of a theatre production. Students develop insight to the motivations of a playwright in the development of a story, and they explore the careers and works of famous playwrights. Theatre provides a balanced educational experience for all students so that they can gain the inquiry and critical skills involved in clarifying theatrical perceptions and knowledge. **Pre-Requisites:** None
World Languages
3.5 credits in electives are required for graduation. World Languages can count toward elective and/or fine arts credit. Please note that many colleges and universities require students to take a minimum of two years of the same foreign language for admittance.

American Sign Language I
In American Sign Language (ASL) I, students will gain a foundation of ASL and of deaf culture. The ASL alphabet, numbers, basic vocabulary, and grammar will be covered over the course of the year. Lesson topics include greetings, introducing yourself, identifying people, exchanging personal information, discussing living situations, talking about families, and talking about activities. Students will have a fundamental understanding of ASL reception and production skills. Lessons will also include how to use non-manual markers to indicate different types of sentences and questions. **Pre-Requisites:** None

American Sign Language II
In American Sign Language (ASL) II, students will build on what they have learned in American Sign Language I. Students will expand their language skills to communicate in a wider array of situations, to further develop their language fluency and to advance their level of comprehension of ASL. Vocabulary and key grammar structures will be introduced using dialogues and narratives that are culturally appropriate. Various number types, expanded fingerspelling practice, space and semantic use of agreement or spatial verbs, and use of negation signs will be covered. Culture lessons will focus on behaviors and knowledge that enable students to act in appropriate linguistic and social ways and to gain more cultural insight into the deaf community. **Pre-Requisites:** American Sign Language I

French I
French I is an introductory course designed for students who have little or no previous knowledge of the French language and culture. This course will allow students to acquire the tools necessary for communication and comprehension of the French language. Students explore the global francophone community, and they compare these different cultures to each other and to their own. This course primes students' fluency through various types of communications. The asynchronous version of French I is a textbook-free course. **Pre-Requisites:** None

French II
In French II, students have the opportunity to review some of the structures from French I, but they also build their knowledge of the basic and intermediate French concepts. Students review the present tense of regular and irregular verbs, the passé composé with avoir and être, and adjective agreement and placement. Students examine grammatical forms and are challenged to progress in their basic knowledge and speaking capabilities. The asynchronous version of French II is a textbook-free course. **Pre-Requisites:** French I

French III
In French III, students continue their study of the French language and popular French culture. They use larger vocabulary terms and explore a variety of literary texts that include the structures and vocabulary that they are learning. In this course, students study vocabulary, grammar, and culture in context through authentic literary and journalistic texts, putting these items into practice through written and spoken tasks. The asynchronous version of French III is a textbook-free course. **Pre-Requisites:** French I, French II

French IV
This intermediate-advanced course is geared toward developing a higher level of fluency in French. Students will continue to explore the Francophone world, making stops in France, and French-speaking and Francophone regions in Europe and in the Americas. They will use new vocabulary to talk about the news, natural phenomena, environmental issues, politics, government services, fine arts and travel. Students will review the present, past, and future tenses along with the subjunctive mood. The student will also be able to use prepositions with infinitives, the passive voice, the comparative and superlative as well as the past subjunctive. French literature will play an important role in this course. Students will be exposed to a variety of literary texts that utilize the structures and vocabulary that they will be learning. An opportunity to apply these structures to various written and recorded projects will be applied throughout the course. Vocabulary, grammar, and culture in context through authentic literary and journalistic texts will be examined over the course of the year. **Pre-Requisites:** French I, French II, French III
German I

In German I, students are introduced to the basic and fundamental skills necessary for expressing common ideas in the German language. They learn to state daily activities and how to have an introductory conversation. These concepts build in theme and scope, allowing students to explore topics including daily activities, travel, needs, desires, and preferences in typical and increasingly complex situations. The course provides a realistic context in which students can practice their newly acquired skills. German I also provides a considerably thorough study of grammatical skills, ranging from the most basic sentences to engaging and creative structures dealing with more interesting situations. German I is a textbook-free course. **Pre-Requisites:** None

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German II

German II provides students with a comprehensive introduction to nouns and verbs and previously learned concepts. Students examine the case systems extensively, and focus on verbs throughout this course. They learn different types of verbs and their conjugations in different grammatical tenses such as present, future, past simple, and present perfect. Students practice one of the most challenging aspects of German grammar — verbs with accusative, dative, and genitive prepositions — thoroughly. Students learn a large number of new vocabulary words and idioms to assist in their continual development of language. German II is a textbook-free course. **Pre-Requisites:** German I

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German III

In German III, students continue their study of the German language and popular German culture. Students use larger vocabulary terms and explore a variety of literary texts that include the structures and vocabulary that they are learning. In this course, students study vocabulary, grammar, and culture in context through authentic literary and journalistic texts, putting these items into practice through written and spoken tasks. German III is a textbook-free course. **Pre-Requisites:** German I; German II

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Mandarin Chinese I

Mandarin Chinese is an introductory course to modern Standard Chinese, which includes the spoken language Mandarin and the written language of simplified characters. In addition to learning about Chinese culture, students learn the basics of Chinese pronunciation through a beginner's vocabulary of Chinese characters using scenario-based examples. In this textbook-free course, students get a glimpse of Chinese tradition and society through cultural tips. As the course progresses, students will explore rhetoric, reading and writing, personal applications, and phonetics. Students have the opportunity to learn about Chinese traditions, sports, employment, and shopping. Other topics include places in China, cultural comparisons, and cultural influence. **Pre-Requisites:** German I; German II

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Mandarin Chinese II

Mandarin Chinese II is an intermediate-level course in which learners will continue to develop communication skills through listening, reading, speaking and writing in the target language. The course presents modern Standard Chinese, Mandarin, as the spoken language and simplified characters as the written language. Students will recognize and apply vocabulary in Pinyin and Chinese characters in the context of common scenarios. Students will practice handwriting Chinese characters in complete sentences. Students will continue learning about Chinese tradition, language and society to become more familiar with Chinese language and culture. In this textbook-free course, students will learn about careers and work, nature, environment, travel, activities, and movies. **Pre-Requisites:** Mandarin Chinese I

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Spanish I

Spanish I provides students with a strong foundation of the Spanish language and its cultural influences. From pronunciation to basic grammar and practical vocabulary, students gain a fundamental understanding of written and conversational Spanish. Students practice pronunciation sounds, greetings and introductions, questions, and present-tense verb conjugation. Students learn how to describe people, school, and pastime activities in addition to likes and dislikes. Spanish I presents information in a fun, interesting format that promotes learning and draws a link between the classroom and real-world situations. The asynchronous version of Spanish I is a textbook-free course. **Pre-Requisites:** None

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Spanish II

Spanish II introduces complex grammatical components, such as reflexive verbs and the present progressive, preterite, and imperfect tenses, along with idiomatic expressions unique to the Spanish language. Building on an ever-growing lexicon, students incorporate concepts to form questions, express preferences and possession, discuss the past, and describe and compare people, places, and locations. Spanish II continues to build a foundation for students in their pursuit to learn and master the Spanish language. The asynchronous version of Spanish II is a textbook-free course. **Pre-Requisites:** Spanish I

Spanish III

In Spanish III, students acquire a more extensive topical vocabulary while gaining a higher understanding of complex grammatical structures, verb applications, and idiomatic expressions. This course allows students to increase their reading and listening comprehension as well as their fluency in speaking and writing in Spanish. Students describe, analyze, summarize, and explain ideas verbally and in writing using the Spanish language. The asynchronous version of Spanish III is a textbook-free course. **Pre-Requisites:** Spanish I; Spanish II

Spanish IV

This course will refine students’ speaking, listening and writing skills, as well as extend their understanding of the Hispanic culture. Students will interact with various resources to continue to build knowledge and apply advanced grammar, syntax, and precise vocabulary to express themselves more accurately in a variety of contexts. Cross-cultural understanding is fostered and real-life applications are emphasized. **Pre-Requisites:** Spanish I; Spanish II; Spanish III

AP Spanish Language and Culture

In AP Spanish Language and Culture, students will use the three modes of communication – interpretive, interpersonal, and presentational – as defined by the World Readiness Standards for Learning Languages. Using the ACTFL Performance Descriptors for Language Learners, students will be provided opportunities to demonstrate their proficiency in each of the three modes. Each module is theme-based, providing ample opportunities to interpret multimodal texts, speak with and write to others, and present by speaking and writing for an audience. Themes in the first half of the course include families and communities, education and careers, entertainment and travel, global citizenship and human geography, lifestyle and traditions, social awareness, historical figures and ethnic identity. In order to demonstrate all three modes of communication, students will engage in discussions, personal opinion and persuasive essays, interpretation activities, and oral and audiovisual presentations. In the first half of the year, students will encounter similar tasks as found on the AP exam, but by the second half of the course the difficulty and complexity will have increased to match the exam’s expectations. Themes in the second half of the year include technology, healthcare and medicine, architecture, beauty and creativity, personal beliefs and interests, fashion, design, literature and the arts, science and ethics, economics, and philosophy and religion. **Pre-Requisites:** Spanish I; Spanish II; Spanish III
Health & Physical Education

One credit in Physical Education and 0.5 credits in Health are required for graduation.

Health

In Health, students discover how to make conscientious decisions when attempting to improve their overall health and wellness. From healthy lifestyles, diets, and exercise to responsibilities within individual families and larger communities, topics within the discipline of health are pertinent and applicable to all students. Throughout the course, students review concepts that promote safe, healthy, and active lifestyles. Major topics of study in this course include noncommunicable diseases, decision making, nutrition, communication, peer and family relationships, health services, and emotions. Health is a textbook-free course. Pre-Requisites: None

Physical Education 9-12

Pennsylvania Public School Law requires all students to complete an annual course in physical education. In compliance with the law, students in grades 9-12 are required to complete 72 hours of organized, supervised physical activity each school year. Students will receive a physical education kit which includes a workbook and items to complete different physical activities. Students are required to complete at least half of their physical education hours using the items they receive in the physical education kit. Students are also required to record their physical education hours in the PA Cyber Physical Education Log. Looking to have a little more fun in Physical Education? Students in grades 9-12 have the option to take Physical Education with a live instructor one day a week. Students can record this hour on their Physical Education log towards the completion of the 72 hour requirement. Pre-Requisites: None

Business Electives

3.5 credits in Electives are required for graduation. Business, Career Readiness, Multimedia, Technology, and General Electives can count toward these credits.

Accounting

In this semester course, students will explore accounting, including investigating accounting careers. They will learn basic accounting skills and procedures both with and without a computer for general journals, general ledgers, cash payments journals, cash receipts journals, sales journals, accounts payable ledgers, and accounts receivable ledgers. In this textbook-free course, students will also learn how to reconcile a bank statement and to prepare payroll records. This course covers the basic principles of financial accounting for individuals and for companies with attention to both the mathematical formulas and to the ethical side of accounting. Each unit has practical exercises including a project at the end of the unit. Pre-Requisites: None

Advertising

Throughout Advertising, students discover various ways that advertising touches their lives. Students learn to identify what customers need and want so that various companies are able to advertise and sell a variety of products and services. Students will learn to identify customers’ desires and discover what is needed to create, advertise, and sell products to fit these needs. This textbook-free course guides students to develop the skills they need as consumers and advertisers. Some of the course topics include building client relationships, advertising strategies, types of media, purchasing media, and creating a complete advertising plan. Advertising provides a solid foundation for those students contemplating careers in marketing, advertising, or other business-related fields. Pre-Requisites: None
### Business Applications

In Business Applications, students focus on business software and the corresponding skills required in the business world. The course begins with an overview of computers, including hardware, software, and operating systems. Students explore spreadsheet, word processing, presentation, and database software and discover how to fulfill a customer request using these skills. They also study web-based applications and additional software packages and learn about Internet technology. Students investigate common security concerns and discover how to prevent security issues. Finally, students experience the software development cycle where they learn how various professionals utilize business applications. They discover the importance of moral and ethical responsibility in an online community. Students must possess basic spreadsheet, word processing, and presentation software skills before entering this course. Additionally, students must be independent learners, and they must be comfortable learning new technology and researching software features and functions. **Business Applications is a textbook-free course.**

**Pre-Requisites:** Basic spreadsheet, word processing, and presentation software skills (i.e. Microsoft Office Suite)

### Business Management

Business Management guides students through examples of their roles as wage earners, consumers, and citizens as they explore the wide, exciting world of business. Students examine topics ranging from extensive credit use to the role of government in the U.S. economy. Students are encouraged to take Introduction to Business as a prerequisite to Business Management, as Business Management dives deeper into the different aspects of managing a business successfully. This course is textbook-free.

**Pre-Requisites:** Introduction to Business

### Entrepreneurship

Students enrolled in this course will learn about the fundamentals of planning and operating a business. Students will identify the personal attributes needed to be a successful entrepreneur and will have the opportunity to research various business models. The planning, organizing, directing, and controlling functions of operating a business will also be studied. Students will understand the responsibilities and risks involved in being in charge of an organization. Students will also use their creativity to create and develop a hypothetical business plan using the fundamental information they learned throughout the course. **Pre-Requisites:** None

### Introduction to Business

In this textbook-free course, students will learn their roles as wage earners, consumers, and citizens as they explore the wide, exciting world of business. Course topics range from the extensive use of credit to the role of government in the United States economy. Students will be introduced to insurance, investments, communication, transportation, labor, world trade, and other issues vital to succeeding in today’s economy. Tips on career planning and job seeking promise to be especially helpful. **Introduction to Business is a textbook-free course.**

**Pre-Requisites:** None

### Marketing

In this textbook-free course, students discover the various ways marketing, and consequently, advertising impact their lives. Marketing is geared toward introducing students to the study and implementation of market analysis, which focuses on the identification and fulfillment of customer needs. This course provides a solid foundation for students contemplating careers in marketing, advertising, or other business-related and commercial fields. **Pre-Requisites:** None

### Money Management

Money Management, a textbook-free course, will offer guidance in responsible money management skills. Topics covered in this course include various methods and approaches to saving and investing money for retirement, developing a sound budget, and eliminating debt. Students will also learn about several types of insurance, career planning, and the ins-and-outs of real estate and mortgages. This course is intended to provide a sound foundation for a lifetime of wise financial decision making. **Pre-Requisites:** None
Career Readiness Electives

**Career Forward 11**

Career Forward 11 provides students with a solid foundation for a successful post-secondary future. The course will focus on career awareness and preparation, career acquisition, career retention and advancement, as well as personal finance and entrepreneurship. Students will begin the course by exploring their abilities, aptitudes, and interests. Career Forward 11 uses the Career Cruising online program to provide students with a variety of activities and the ability to learn more about the careers that interest them. This knowledge will assist students in creating a career path and a career plan that will be aligned to their personal interests and skills. Practical items such as resumes, cover letters, and interviewing skills will be addressed. Personal budgeting and financial literacy are an important part of the course. Students will also learn how to increase skills in practical areas such as teamwork, media literacy, internet literacy, and decision making. Whether students plan to seek a two-year degree, four-year degree, a military career, or employment, Career Forward 11 will provide all students information and practical advice for achieving those goals. Career Forward 11 is a required course for graduation. **Pre-Requisites:** None

**Career Exploration in Dentistry**

This course introduces students to the exciting and varied career opportunities in the dentistry profession, from dental assistant all the way up through oral surgeon. Students will review the history of dentistry globally and in the United States and will learn key dental terminology. The course will introduce the roles and tasks of the profession as well as the skills and education required of nearly every member of the dental staff. Students will gain an understanding of what it takes to perform each position and how they work together. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** None

**Career Exploration in Finance**

This course introduces students to the challenging world of finance and provides information about finance careers. Students will review key financial terms and examine various groups, positions, and roles within financial institutions. Resumes, interviews, and networking will also be introduced. Students will also discuss ethics on Wall Street and the role of finance within society. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** Algebra I

**Career Exploration in Healthcare**

This course introduces students to the exciting and varied future career opportunities in the healthcare industry that will be in demand. The course will introduce the roles and tasks, identify education and skills needed, identify responsibilities of roles which support or supervise their role, analyze legal and ethical responsibilities, limitations, and implications for each of these professions. Healthcare roles explored in this course include physicians, physician assistants, pharmacists, physical therapists, healthcare information technology managers, occupational therapists, technicians, dentists, paramedics, and nurses. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** None

**Construction Fundamentals and Careers**

This course introduces students to some of the foundational elements of home construction and deep dives into careers, technology, and the future of construction. It also addresses some of the academic proficiencies that different careers in the field of construction will need to have. Later in the course, specific careers, career outlooks, and specialized education and training requirements will be covered. Students will discover the varied roles within the field as well as what it takes to own a construction company. Finally, the course delves into green construction and where the future of construction is headed. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** None
Early Childhood Education

The Early Childhood Education course is designed to provide an overview of the expectations and roles of the early childhood educator. This textbook-free course provides details about childhood development, health, nutrition, and guidance strategies to help students understand the exciting and unique opportunities that a career in early childhood education can offer. The course is intended to prepare students for challenges they may face, but to emphasize the rewards of being able to influence the life of a young child. The ability to offer support to children as they learn and grow is a point that is highlighted throughout each lesson. **Pre-Requisites:** None

Explorations in Arts Careers

For every Broadway dancer, every television star, and every pop singer, there are countless people behind the scenes helping to make it happen. Explorations in Arts Careers introduces students to the skills that are part of the many fascinating careers in the arts. This course focuses on all types of art forms such as music, dance, visual arts, film, and theater. Studying the arts creates independent and innovative thinkers and many doors are open to an artist with the proper training. This course should be taken for those considering a career in the arts, and is intended for students who may want to pursue an arts major in college or an artistic career path. **Pre-Requisites:** None

Introduction to Education and Teaching

This course is designed to prepare future educators for the classroom they may inherit! The course starts with a history of education and the blended, adaptive, and personalized learning opportunities that are coming to the forefront in teaching and learning. It then explores new and emerging technologies, along with their current and future impact on education. Throughout the course, students will explore a wide range of career possibilities in the education field and evaluate both the promises and pitfalls of technology in education. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** None

Robotics: Applications and Careers

This course on robotics teaches students what a robot is and how it relates to other key technologies such as artificial intelligence and machine learning. The course then examines 10 applications of robots and how they will change and impact various aspects of our lives and the economy. Will robots simply steal our jobs, or will they be a tool that will create new opportunities and even free humans to use our creativity and curiosity to their full potential? Students will grapple with this and many other questions as they explore this vital, future-focused subject. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** None

Biotechnology

This competency-based course provides the students with a solid foundation in biotechnology. Students will engage in interactive videos designed to teach students about career paths, research, data analysis, laboratory safety, and the use of laboratory equipment in the field of biotechnology. Additionally, students will examine topics that include Polymerase Chain Reaction (PCR), analysis of DNA structure, DNA replication, and the DNA purification process. Students will use virtual reality to demonstrate their knowledge of laboratory equipment by exploring the use of micropipettes, serological pipettes, and spectrophotometers. Students will also discover how to make a molar solution using virtual reality. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in biotechnology. **Pre-Requisites:** Biology

Carpentry

This course provides students with an understanding of carpentry. Students will engage in interactive videos designed to teach how to use basic measuring tools, hand tools, and machines commonly used in the field of carpentry. Additionally, students will examine various wood construction materials and their properties. Throughout the course, students will learn components of site and personal safety, and how to interpret detailed drawings used for construction. **Pre-Requisites:** None
Good afternoon everyone!

Our Pasta Making Workshop is happening Wednesday, February 17th at 4:00 PM, and we hope you can join us for this event.

Please use this link to enter the classroom for the Pasta Making Workshop:
https://us02web.zoom.us/j/882704899744

Materials needed for this event are:
- Pasta (we’ll be making penne)
- 8 cups of water
- 1 tsp of salt
- 1 tbsp of olive oil
- Freshly grated Parmesan cheese
- Fresh basil leaves
- 1 can of crushed tomatoes

Ingredients:
- 1 cup of cooked, drained pasta
- 1/2 cup of grated Parmesan cheese
- Fresh basil leaves, chopped
- Freshly grated Parmesan cheese

Instructions:
1. Bring a large pot of salted water to a boil.
2. Add pasta to the boiling water and cook for 8-10 minutes or until al dente.
3. Drain the pasta and set aside.
4. Heat olive oil in a large skillet over medium heat.
5. Add crushed tomatoes and salt, and simmer for 10 minutes.
6. Add cooked pasta to the tomato sauce and toss to combine.
7. Serve immediately, topped with fresh basil leaves and Parmesan cheese.

By attending this workshop, you will learn the art of making homemade pasta from scratch, using fresh ingredients and traditional methods.
Criminal Justice

This course provides students with an overview of the criminal justice system. In the Criminal Justice course, students engage in interactive videos designed to test their visual memory and the ability to apply their skills to effectively manage a crime scene. Students will become immersed in topics that include criminal and constitutional law, security, and communications. Students will review basic law enforcement skills, which includes tactics, methods, and other skills utilized by law enforcement. **Pre-Requisites:** None

Culinary Arts

This course provides students with an overview of basic fundamentals and standard practices of the culinary arts. In this course, students will learn culinary techniques and the recognition, selection, and proper use of tools and equipment. Students will learn how to identify and prepare a variety of foods and recipes, as well as master conversions through the use of proper scaling and measurement techniques. Using video-based simulations, students will prepare standard recipes while effectively managing time, accurately measuring ingredients, and appropriately using kitchen equipment. Food safety and sanitation techniques will also be an important part of this course. **Pre-Requisites:** None

Medical Assistant

This course is designed to prepare students with the knowledge and skills to assess, plan, provide, and evaluate care for patients in a variety of healthcare settings. Students will engage with interactive videos to learn first aid principles, diagnostic testing, and laboratory procedures. Emphasis will be placed on safety, medical law, and medical interventions. This course is designed to provide students with a competitive edge for entry into the healthcare marketplace. **Pre-Requisites:** None

Nursing Assistant

This course is designed to prepare students with knowledge of basic nursing assistant skills which are necessary to assess, plan, provide, and evaluate the care of patients in various healthcare settings. Students will engage with interactive videos while learning about infection control, personal care skills, mental health needs, and legal responsibilities. Additional information on standard vital signs, identifying body parts, wheelchair assistance and ambulation, and the care of patients is also provided. This course is designed to provide students with a competitive edge for entry into the healthcare global marketplace. This course is best suited for students in grades 11 and 12. **Pre-Requisites:** None

Drones

In this course, students will engage with interactive videos designed to teach students the skills and qualities of a drone pilot. Students will learn how weather affects the drone and will develop an understanding of the physics involved with flying. Students will be immersed in topics that include emergency procedures, preflight inspection, radio communication, VLOS operations, sectional charts, aerial photography, and search and rescue operations. **Pre-Requisites:** None
Multimedia & Technology Electives

Adobe Illustrator

This course provides an introduction to Adobe Illustrator. Students will learn everything from basics like navigating Illustrator to performing complex tasks such as managing colors, drawing, creating illustrations, and much more. Students will gain insight into what it is like working in the graphic design industry in this course. The course contains guided video tutorials, hands-on projects, and step-by-step resources that help students learn how to work in Illustrator. Adobe Illustrator is a textbook-free course. Pre-Requisites: None

Adobe InDesign

This course introduces students to the world of Adobe InDesign. Through the course, students will learn everything from basics like navigating InDesign to performing complex tasks such as creating page layouts, applying interesting effects, and making documents interactive. Students will gain insight into what it is like working in the digital media and print design industry in this course. This textbook-free course contains guided tutorials, do-it-yourself projects, and other resources that will help students practice and learn how to work in InDesign. Pre-Requisites: None

Adobe Photoshop

This course introduces students to the world of Adobe Photoshop. Through the course, students will learn everything from basics like navigating Photoshop to performing complex tasks such as editing and retouching photos, applying filters and effects, and creating original artwork. Students will gain insight into what it is like working in the visual and graphic design industry in this course. The course contains guided tutorials, do-it-yourself projects, and other resources that will help students practice and learn how to work in Photoshop. Adobe Photoshop is a textbook-free course. Pre-Requisites: None

Adobe Premiere Pro

This course introduces students to the world of Adobe Premiere Pro. Students will get an insight into the video design and production industry. Throughout the course, students will progress from learning the basics of navigation to performing complex tasks like editing videos, applying filters and effects, and even creating original artwork. This textbook-free course contains guided tutorials, engaging projects, and great resources that will help students practice and learn how to work in Premiere Pro. Pre-Requisites: None

Basic Web Design

In this course, students will learn how to design a beautiful and functional website. Students will learn how to take their design and translate it into a live website using Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) programming languages. HTML5 and CSS3 will be the standard versions used in the class. Students will understand design components of websites, including the use of color, layout and when to use different techniques, typography rules, and the importance of imagery. Upon completion of this course, each student will have hands-on experience creating a fully functioning website. Students do not need to have a previous technical background with HTML or CSS prior to taking this course. Basic Web Design is a textbook-free course. Pre-Requisites: Ability to navigate the internet, use email, and use word processing software (i.e. Microsoft Word)

Building Maintenance Technologies

The Building Maintenance Technology course will focus on all aspects of the construction industry from health and safety to the tools that every construction professional needs in their collection. They will learn about the various roles in the industry as well as job outlooks, educational and experiential requirements, and salary information. Some activities will focus on career exploration to discover career options that best align with interests and talents. Students will learn basic construction math and how it is applied during design and building phases of projects. They will learn specifics about carpentry, construction drawings, framing floor systems, framing walls, and framing roofs. Throughout, they will establish a foundation for what opportunities exist for them in the industry. Pre-Requisites: None
Cloud Technologies and the Internet of Things

First, we had the internet of computers. Then, with the advent of email and social media, along with mobile technology, it became the internet of people. Today’s world is increasingly becoming the internet of things. With advances in battery power, sensors, and computer chips, more and more devices are being connected to the internet. This will allow these devices to be monitored, controlled, and used more effectively for people and businesses. This textbook-free course will examine the trends and opportunities surrounding the Internet of Things. Students will learn about the technologies, hardware, and software that underpin the Internet of Things. A variety of end-market applications in our homes, businesses, and cities will be explored. Finally, students will learn about the many career opportunities that the Internet of Things will enable. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. Pre-Requisites: None

Computer Basics

In this course, students will learn how to use productivity and collaboration tools, such as G Suite by Google Cloud to create word processing documents, spreadsheets, surveys, and forms such as personal budgets and invitations. Computer Basics is a textbook-free course. Pre-Requisites: None

Cybersecurity

In the Cybersecurity course, students will learn about the practice of protecting networks, systems, and programs from digital attacks. They will better understand the aim of these attacks, such as destroying information, extorting money and resources, or disrupting business operations. They will learn about the challenges and opportunities that implementing cybersecurity measures can present. As attackers become more innovative, it is more important than ever to have effective cybersecurity channels in place to counter them. Students will learn about countermeasures and role recovery and their integral function in the cybersecurity realm. Additionally, students will learn what makes certain networks and systems more vulnerable to attacks. They will become adept at identifying potential viruses, worms, threats, and malware. The Cybersecurity course acts as a foundation on which to build extensive knowledge about threats to digital security. Cybersecurity is a textbook-free course. Pre-Requisites: None

Introduction to Artificial Intelligence

This course teaches what every student should know about Artificial Intelligence. AI is a fast-moving technology with impacts and implications for both our individual lives and society as a whole. In this course, students will gain a basic introduction to the building blocks and components of artificial intelligence, learning about concepts like algorithms, machine learning, and neural networks. Students will also explore how AI is already being used, and evaluate problem areas of AI, such as bias. The course also contains a balanced look at the impact of Artificial Intelligence on existing jobs, as well as its potential to create new and exciting career fields in the future. Students will leave the course with a solid understanding of what AI is, how it works, areas of caution, and what they can do with technology. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. Pre-Requisites: None

Introduction to Computer Science

Introduction to Computer Science is a starting point for any student interested in computer related skills and careers. This course will introduce students to an overview of computers, operating systems, networks, cyber security, and the Internet. Students will also have the opportunity to explore careers in computer related fields and how computers affect everyday life. Pre-Requisites: None

Intro to Java Programming

Java is one of the most widely used computer languages in the world. This course will teach students Java by having them complete multiple projects, both in the console and user interface, including: mad libs, player vs computer games, battleship, tic tac toe, picture shuffler, and many more. This textbook-free course is meant to give students ample experience in Java by creating multiple stand alone programs. Pre-Requisites: Previous coding experience in any computer language including: JavaScript, Python, C#, C++, Ruby or any other object oriented computer language is strongly recommended.
JavaScript Game Design

JavaScript is one of the best computing languages to learn because it makes web browsers come alive! This course will teach students JavaScript through coding multiple computer games including pong, fish, a platformer, and tower defense! They will then code or customize their own game. Students will write all the code themselves by working through individual lessons and by watching video reviews. They will learn about variables, functions, listening events, loops, arrays, and objects. This course assumes no coding experience and includes self-graded quizzes and tests. Students will also upload their work at the conclusion of each project to create an online portfolio. JavaScript Game Design is a textbook-free course. **Pre-Requisites:** Ability to navigate the internet, use email, and use word processing software (i.e., Microsoft Word)

Microsoft Excel

This course introduces students to Microsoft Excel. Knowledge of this fundamental spreadsheet software has proven to boost career and employment prospects. Excel skills can boost productivity as a student and are useful in daily life, such as managing personal finances. Through an engaging and scaffolded approach, students advance from learning the basics of formating and navigation, to performing complex tasks like data manipulation, macros, and PivotTables. Microsoft Excel is a textbook-free course. **Pre-Requisites:** None

Microsoft PowerPoint

This course introduces students to Microsoft PowerPoint. Students will gain critical skills in this essential presentation software, which will benefit them in their education and professional futures! Students start by learning fundamentals like slide creation and navigation, and progress to more complex tasks like 3DModels, animations, and transitions. Microsoft PowerPoint is a textbook-free course. **Pre-Requisites:** None

Microsoft Word

This course introduces students to Microsoft Word. Students will gain insights into the features and capabilities of this essential software within personal, educational, and business settings. Throughout the course, students’ progress from learning the basics of navigation, to performing complex tasks like graphic elements and collaboration. Microsoft Word is a textbook-free course. **Pre-Requisites:** None

Python Multiplayer Adventure

Python is a powerful language designed to do just about anything! This course allows students to learn Python by first completing a text based console game and then turning it into a multiplayer adventure! Students will not only learn Python from going through the individual lessons and video reviews but also understand a client server relationship. They will get to code in their own Python web server that allows connections through a browser. Students will gain experience using variables, classes, functions, lists, dictionaries, generators, and proper Python formatting. This is a great course for anyone interested in preparing themselves for future coding classes. This textbook-free course assumes no coding experience. **Pre-Requisites:** None

Python Programming

Learn the Python programming language and develop your problem solving skills! This textbook-free course covers the fundamentals of programming and algorithmic thinking, including topics such as variables, loops, conditionals, methods, and functions. Students build numerous projects throughout the year, including text-based games and drawings made with code. Coding can be a fun and rewarding experience that helps students discover if computer programming is the career path for them. **Pre-Requisites:** None
Wearable Technology Innovations

From hearing aids to pedometers to smart watches, humans have made and worn devices to count their steps, access information, and communicate. With the continued miniaturization of chips and sensors, combined with increasing sophistication of artificial intelligence, wearable technology has proliferated into countless end-markets. This course will introduce students to wearable technologies and the components and software that make these technologies possible. The course will also evaluate several applications of wearable technologies in various industries. Finally, the course will examine and discuss the implications of wearable technology, including its pros and cons, and potential implications to our health, privacy, and society. This course involves interactive online lessons, projects, short-answer assignments, and personal reflection activities. **Pre-Requisites:** None

Web Design

Web design allows students to learn how websites are designed and created, from planning to publishing. Course content will include basic web programming languages, such as HTML and CSS. Students will also learn web file management. **Pre-Requisites:** None

General Electives

Character Education

This course teaches students practical skills for understanding and managing their emotions, setting goals and getting organized, understanding and getting along with others in our diverse world, and making good decisions. Research shows that people who practice these skills have greater academic achievement as students and experience more success and satisfaction as adults. Character Education is a textbook-free course. **Pre-Requisites:** None

Child Development

This course is designed to help prepare students for their responsibilities as parents and caregivers of children. Topics include prenatal care, growth and development through age six, teen pregnancy, maternal health, parenting skills, and child guidance. Child Development is a textbook-free course. **Pre-Requisites:** None

Communications

In Communications, students explore various aspects of communication. They will investigate the foundations of communication by analyzing, applying, and designing creative works essential to the professional communications industry. This textbook-free course establishes a comprehensive foundation for students interested in a post-secondary career in communications. **Pre-Requisites:** None

High School Essentials

The journey through high school starts here! In this course, students will become familiar with the moving parts of PA Cyber and will learn how to be successful from their first few years of high school to graduation. As students begin to build the foundation for their high school career, this course will help to identify the who, what, when, and where of PA Cyber and the important resources available to them. Students will become familiar with PA Cyber’s digital programs, school and faculty structure, academic supports, the basics of learning, and how to stay safe online. In finishing this course, students will have a clear idea of how to stay on track, get involved, and plan for a successful future. High School Essentials is a textbook-free course. Students will be scheduled for this course in Grade 9. The course will also be available to any high school students that did not complete the course in Grade 9. **Pre-Requisites:** None
Human Development and Family Studies

Students in the Human Development and Family Studies course explore the basic information about human development, parenting roles and strategies, and functioning effectively within the family in today’s changing and complex society. This textbook-free course helps students to develop competencies related to genetics, family types, and effective communication. Students investigate the ways in which humans develop over their lifespan, human relationships, child care, and child abuse. Students also learn the importance of creating a nurturing and caring home environment.

Pre-Requisites: None

Life Skills

As students grow and become adult citizens, they are expected to understand basic life skills to live independent and successful lives. Life Skills, a textbook-free course, is designed to provide students with the information that they need as they begin the adulthood phase of their lives. From personal finance to nutrition to personal development, students have the opportunity to learn useful skills, helping them to become responsible and proactive young adults.

Pre-Requisites: None

Media Writing

For students who are interested in majoring in broadcast journalism, communications, or any other form of media in college, Media Writing is the ideal course. Media Writing is a textbook-free course wherein students explore the basics of media writing and reporting. Students are exposed to numerous styles of writing, including social media reviewing, analysis, public service announcements, and writing for publication. In addition, students become familiar with researching and locating sources that are reliable and valid. In addition, students will explore persuasive media and media rhetoric. They will also participate in the review of movies, social media, news stories, and magazine articles.

Pre-Requisites: None

Study Skills and Strategies

The Study Skills and Strategies course equips students with the skills and understanding critical to effective learning. Using a unique approach to the traditional topic of study skills, this course weaves understanding regarding the role of the brain in learning into the instruction of discrete learning skills and strategies. Moving beyond a list of good tips and ideas, the Study Skills and Strategies course will challenge students to develop intentional approaches to learning. They will be required to make connections between the strategies and skills they learn in this course and the implementation of those strategies and skills in their other coursework. Upon completion of the course, students will have learned a variety of specific learning skills and strategies, gained greater understanding of their own learning preferences, and become prepared to develop and implement specific learning and study plans for any academic course or other learning needs. Study Skills and Strategies is a textbook-free course.

Pre-Requisites: None
Keystone Courses

**Keystone Algebra I**

Keystone Algebra I is a textbook-free course designed to review math concepts that are covered on the Algebra I Keystone Exam. The Keystone Exams will assess students using both multiple-choice and constructed response questions. The content in the course was created to align with the Keystone Assessment Anchors as defined by the eligible tested content. Throughout this elective course, an emphasis is placed on test preparation and preparing students to think critically. Through the use of daily lessons, students will have the chance to learn, understand, apply, and practice skills necessary for grasping content that will be assessed on the exam. **Pre-Requisites:** Algebra I

**Pre-Requisites:** Algebra I

**Keystone Biology**

Keystone Biology is designed to review science concepts that are covered on the Biology Keystone Exam. The Keystone Exams will assess students using both multiple-choice and constructed response questions. The content in this textbook free course was created to align with the Keystone Assessment Anchors as defined by the eligible tested content. Throughout this elective course, an emphasis is placed on test preparation and preparing students to think critically. Through the use of daily lessons, students will have the chance to learn, understand, apply, and practice skills necessary for grasping content that will be assessed on the exam. **Pre-Requisites:** Biology

**Pre-Requisites:** Biology

**Keystone English Literature**

Keystone English Literature is designed to review language arts concepts that are covered on the English Literature Keystone Exam. The Keystone Exams will assess students using both multiple-choice and constructed response questions. The content in this textbook-free course was created to align with the Keystone Assessment Anchors as defined by the eligible tested content. Throughout this elective course, an emphasis is placed on test preparation and preparing students to think critically. Through the use of daily lessons, students will have the chance to learn, understand, apply, and practice skills necessary for grasping content that will be assessed on the exam. **Pre-Requisites:** English 9; English 10

**Pre-Requisites:** English 9; English 10