

HIGH SCHOOL

COURSE CATALOG

2026-27



PAVIRTUAL
CHARTER SCHOOL

A COMMUNITY OF PARTNERSHIP, LEARNING & ACHIEVEMENT

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Welcome

Dear Students and Learning Coaches,

With great pleasure, we introduce PA Virtual High School's Course Catalog for the academic year 2026-2027 representing the collective efforts of the faculty and staff. Within these pages, you will discover comprehensive details for navigating your educational journey, from fulfilling PA Virtual's local graduation requisites to adhering to the [Act 158 graduation mandates](#) outlined by the Pennsylvania Department of Education.

This catalog serves as your compass, offering insights into credit acquisition, course scheduling, specialized programs, credit retrieval options, and detailed course breakdowns. We urge you to utilize it diligently as you chart your path through high school.

For any clarifications or questions regarding the contents of this document or the procedures outlined within, we encourage you to reach out to your designated School Counselor:

- Maddie Liberatore, 9th-Grade School Counselor - mliberatore@pavcs.us
- Janae Johnson, 10th-Grade School Counselor - jjohnson@pavcs.us
- Jessica Keys, 11th-Grade School Counselor - jkeys@pavcs.us
- Meghan Myers, 12th-Grade/Early Graduates School Counselor - mwmyers@pavcs.us

As we embark on this new academic chapter together, we extend a warm welcome to the start of the 2026-2027 school year!

Sincerely,

Leanne Carrington, High School Principal & 9th Grade Administrator- lcarrington@pavcs.us

Regina Kubica, 10th Grade Assistant Principal - rkubica@pavcs.us

Dr. Anjeleke Woodruff, 11th Grade Assistant Principal - awoodruff@pavcs.us

Casey Wernick, 12th Grade Assistant Principal - cwernick@pavcs.us

Mission & Vision

Mission: To provide Pennsylvania public K-12 students a superior cyber charter option, continuously improving by using innovative technologies, well-rounded curricula, and individualized educational delivery in safe learning environments. PA Virtual seeks to equip our students with excellent academic education, social skills, and character development for their lives as productive 21st-century citizens.

Vision: PA Virtual strives to be a recognized leader nationwide for strategic thinking, innovation, and quality in all areas of K-12 cyber education, serving as a respected exemplar for other cyber schools.

Credits & Graduation Requirements

Local Graduation Requirements

Graduation candidates must earn 21 credits minimum within the required subjects to be eligible to receive a diploma from PA Virtual Charter School. The Pennsylvania Department of Education governs these graduation requirements. Additional requirements sanctioned by the state of PA appear on page 7.

<u>English</u> Four Credits (4) Minimum <i>*Must take English every year</i>	<u>Mathematics</u> Four Credits (4) Minimum	<u>Social Studies</u> Three Credits (3) Minimum
<u>Science</u> Three Credits (3) Minimum	<u>Humanities</u> <i>(World Language and/or Fine Art)</i> Two Credit (2) Minimum <i>*Strongly recommend 2 years of the same World Language</i>	<u>Physical Education</u> One Credit (1) <i>*Must take 0.25 credit PE every year</i>
<u>Health</u> 0.5 Credit	<u>Career</u> 0.5 Credit	<u>Capstone Graduation Project</u> 0.5 Credit
<u>Electives</u> 2.5 Credits Minimum	<u>Total Minimum Credits Required for Graduation</u> 21 Credits	<u>Meet Act 158 Pathway Requirements</u>

As of school year 2026-2027, all students must complete the FAFSA or an opt-out form to be eligible for graduation.

Grade Level Determination

Students must earn at least 5.25 credits annually to be promoted to the next grade. Credits earned determine a student's grade level designation:

- 10th Grade: Minimum of 5.25 credits earned
- 11th Grade: Minimum of 10.5 credits earned
- 12th Grade: Minimum of 15.75 credits earned
- Graduate Candidates: Minimum of 21 credits earned in required subjects

Minimum/Maximum Enrollment Per Year

- Students in grades 9,10, & 11: Must take a minimum of 5.25 credits per school year
- Students in grade 12: Must take a minimum of 5 credits per school year
- All students 9-12: Recommended maximum of 6 credits per school year

*Students can take up to 8 credits with permission from administration

4-Year College Admissions Requirements

The Pennsylvania State University (PSU) dictates [minimum admission requirements](#). These are typical of most universities; however, students should check with colleges directly to learn their specific or alternate requirements as they may require additional credits in each subject area for admissions, especially for specialized programs.

Minimum Admissions Requirements	Years/Credits
Social Studies	3
English	4
Mathematics (at least Algebra I, Geometry, & Algebra II) <i>completed by the end of 11th grade</i>	4
Laboratory Science	3
World Language	2 (Strongly Recommended)
Visual and/or Performing Arts	1
Additional College-Prep Electives (Choice of an additional year of Science, World Language, Social Studies, Math, English, and Visual/Performing Arts)	3 (Strongly Encouraged)

Grading Scale & GPA

GPA's appear on the unofficial transcript in the Sapphire Community Portal. Grade points for each course are determined by multiplying two factors: the numerical weight of the final grade, as reflected in the chart below, and the credit value. Dividing total course grade points by the total of attempted credits calculates the GPA.

Grade	Number Range	Standard Courses (4.0 scale)	AP/Honors Courses (5.0 scale)
A	100-95	4	5
A-	94-90	3.67	4.67
B+	89-87	3.33	4.33
B	86-83	3	4
B-	82-80	2.67	3.67
C+	79-77	2.33	3.33
C	76-73	2	3
C-	72-70	1.67	2.67
D	69-65	1	2
F	64-0	0	0

PA Virtual does not engage in class ranking.

State Mandated Requirements for Graduation

In addition to PA Virtual's local grade-based requirements, students wishing to graduate from a PA public school like PA Virtual must also meet the criteria mandated by the State of Pennsylvania. Act 158 provides students with options to meet statewide high school graduation requirements through one of four pathways that fully illustrate their college, career, and community readiness. In addition, to comply with state law, all students in the graduating class must complete either the FAFSA or an opt-out form.

Below are the Graduation Pathways. Click [HERE](#) to go to our website's Act 158 informational page.



As of 2023, and in accordance with ACT 158 of 2018, ALL PA students must meet statewide graduation requirements in one of the following four pathways in order to be graduation-eligible. Pathways 1 and 2 below are the most direct; however, Pathways 3 and 4 to the right are options for students to alternately demonstrate post-secondary preparedness.

****Please note that all PA Virtual students *must* take the Keystone Exams for purposes of federal accountability requirements set forth in Every Student Succeeds Act (ESSA).**



Pathway 1: KEYSTONE PROFICIENCY

To use this pathway, a student must take and score Proficient or Advanced on all three Keystone exams: Algebra 1, Biology, and Literature.



Pathway 2: KEYSTONE COMPOSITE

To use this pathway, a student must take all three Keystone exams, and at least one score must be Proficient or Advanced. No exam may be Below Basic. The composite of the 3 Keystone scores must be at least 4452.



Pathway 3: ALTERNATE ASSESSMENT

A student must provide evidence of ONE of the following:

- One alternative assessment score or better on:
--ACT (21), ASVAB AFQT (31), PSAT/NBSQT (970), SAT (1010)
- Score of 3 or better on AP Exam(s) related to each Keystone content area in which the score was less than Proficient
- Successful completion of dual enrollment courses(s) related to each Keystone content area in which score was less than Proficient
- Successful completion of a pre-apprenticeship program
- Acceptance into four year Institution of Higher Education (IHE) for college-level coursework



Pathway 4: EVIDENCE-BASED

A student must provide evidence of THREE of the following:

ONE or more of these four bulleted items:

- Score of 3 or better on any AP Exam
- Successful completion of any dual enrollment or postsecondary course
- One industry-recognized credential
- Acceptance into an other-than-four year Institution of Higher Education (IHE) for college-level coursework

AND, no more than **TWO** of the following:

- Proficient or Advanced on any Keystone Exam
- Successful completion of a service-learning project
- Letter guaranteeing full-time employment or military enlistment
- Completion of an internship, externship, or cooperative education program



Students with IEPs work with their case managers and/or school counselors to determine the best route for graduation eligibility.

The score ranges for each Keystone exam are listed below:

	Below Basic	Basic	Proficient	Advanced
Algebra I	1200–1438	1439–1499	1500–1545	1546–1800
Biology	1200–1459	1460–1499	1500–1548	1549–1800
Literature	1200– 1443	1444–1499	1500–1583	1584–1800

Please Note

- Keystones are mandatory exams for all PA Virtual High School students. Keystones will be administered in a secure testing environment using the student's school-issued device. The SAT and ACT are optional exams that some colleges/universities may require for admission. Students may use their PA Virtual devices to take those exams.
- **CTE (Career & Technical Education) Concentrator Pathway (*transfers only*)**: Students must attain an Industry-Based Competency Certification related to the program of study *or* demonstrate either 1) readiness for continued meaningful engagement in the program of study or 2) a high likelihood of success on an approved industry-based assessment. Students must also pass courses associated with each Keystone Exam and pass the National Occupational Competency Testing Institute (NOCTI) or the National Institute of Metalworking Skills (NIMS) assessment in an approved CTE concentration. **PA Virtual will accept industry-based credentials from a previous high school if a student completed them before transferring to PA Virtual; however, PA Virtual does not offer the CTE Concentrator Pathway.**

Course Selection Planning

Students should select courses that provide an appropriate level of rigor and offer a challenging yet manageable program of study. Proper planning during high school is essential to preparing students for their future endeavors. While planning, students should consider their academic abilities (strengths and weaknesses), interests, and goals.

Educational planning is a collaborative effort between students, counselors, teachers, and learning coaches. Counselors ensure students take the appropriate courses/credits to fulfill graduation requirements, reviewing teacher input and recommendations to inform core course placement. All students are placed in the proper core courses unless multiple choices are available and appropriate. Each year, as students progress in high school, they will have more courses (electives) from which to choose.

Course sequence maps are at the end of this course catalog. The maps show the general order in which students take courses. Many courses have prerequisites that mandate specific sequencing.

Use the credit audit form on page 14 to chart completed and future courses required for meeting graduation requirements. Unofficial transcripts appear in the Sapphire Community Portal, which provides a student's entire academic history.

If too few students elect to enroll in a course listed in the catalog, the HS Administration may eliminate it or offer it only asynchronously. It may not be possible to schedule all requested courses.

Synchronous and Asynchronous Classes

Most courses at PA Virtual are offered synchronously and asynchronously, except for elective courses, which are only provided asynchronously.

- **Synchronous:** Courses are live “zoom-like” sessions through our safe Blackboard platform that meet at a specific time and place Monday through Thursday. Lessons are teacher-directed with expected student attendance and participation. Teachers offer Office Hours on Fridays.
- **Asynchronous:** Courses do not have live sessions Monday through Thursday, and the student is responsible for independently following along with the syllabus, the Blackboard lesson plans, and the assigned coursework (whether in Edgenuity or elsewhere) to complete course requirements. Teachers monitor and grade all student work and offer regular Office Hours, which may also be mandated to support student learning.

Students in asynchronous courses learn independently according to teachers’ lesson plans and by attending office hours. Asynchronous students must demonstrate proficient to advanced academic achievement in their prior courses, be self-starters, and be independent learners. **Most core classes are synchronous**, and students greatly benefit from daily live instruction with highly qualified teachers.

If a student meets the requirements of asynchronous learning, it can be requested; however, the administration will review prior academic transcripts, and students will be scheduled with the best opportunity for academic success in mind.

Course Durations

Most 1.0-credit courses are yearlong, most 0.5-credit courses are one semester, and most 0.25-credit courses are one quarter.

The high school day is divided into six (6) 55-minute academic class periods. There is a 45-minute lunch period in the middle of the school day.

Time	Period
8:10 AM - 9:05 AM	Period 1
9:10 AM - 10:05 AM	Period 2
10:10 AM - 11:05 AM	Period 3
11:05 AM - 11:50 AM	Lunch
11:55 AM - 12:50 PM	Period 4
12:55 PM - 1:50 PM	Period 5
1:55 PM - 2:50 PM	Period 6

Mid-Year Enrollment

Students who enroll after the start of the school year work directly with their grade-level school counselor to determine course placement. Counselors make every attempt to align the student's schedule with the previous school schedule. **Students must provide a copy of their current transcripts to ensure accuracy.** Course offerings may be limited for students who enroll mid-year.

Schedule Change Requests

Schedule change requests are only accepted and reviewed during the add/drop periods, which are announced through Blackboard and email. Students must submit schedule change requests through the designated form. Not all requests will be honored if submitted beyond the posted deadlines.

Counselors will notify students who enroll mid-year of the add/drop window based on their enrollment date.

Advanced Course Levels

Teachers deliver instruction with varying difficulty levels, including Advanced Placement (AP) and Honors courses. Students wishing to take Advanced Placement and/or Honors course(s) need to fulfill prerequisite(s) and acquire teacher recommendation(s).

- **Advanced Placement (AP):** AP courses follow the college-board curriculum, challenge students with college-level work in both rigor and expectations and prepare all students for the AP exam. Students enrolled in an AP course undertake a rigorous workload that involves extensive reading, writing, problem-solving, and critical thinking. Learning independently outside the classroom is essential to success in these courses. Students should research whether colleges/universities they are interested in attending accept HS AP credit as college credit. Please visit www.collegeboard.org for additional information on the expectations of AP courses.
- **Honors:** Honors courses follow a challenging curriculum with an accelerated pace and enriched content. They prepare students for their progress toward meeting the challenges of college-level work. Students enrolled in Honors courses undertake a rigorous workload that involves extensive reading, writing, problem-solving, and critical thinking. Independent learning outside the classroom is essential to success in honors courses.

Capstone Graduation Project

Completing the Capstone Graduation Project, linked to post-secondary goals, is a local requirement for graduation and is a required course at PA Virtual. The project may include community service, job shadow/internship, pre-apprenticeships, earning industry-based credentials, a research project/paper, and more. All projects require supervision by a mentor with experience, qualifications, and expertise in the chosen area. Students develop research questions, write papers, and present their findings to a panel of PA Virtual staff. **Students must also meet with their school counselor for a Senior Review Meeting as part of the Capstone Project.**

Special Academic Programs

Honor Roll

Students are recognized at the end of each school year for strong academic performance in all scheduled courses.

- **Distinguished Honor Roll:** To be recognized for the Distinguished Honor Roll, a student must have a GPA of 4.0 or higher.
- **Principal Honors Roll:** To be recognized for the Principal Honors Roll, a student must have a GPA of 3.5 or above.
- **Honor Roll:** To be recognized for the Honor Roll, a student must have a GPA of 3.0 or above.

PA Virtual Honors Program

PA Virtual's Honors and AP Courses are augmented by subject-specific, local chapters of National Honors Societies within various disciplines to comprise the PA Virtual Honors Program. These honor societies all require students to be enrolled in an accelerated course within a specific subject, maintain a certain average, and maintain a minimum overall GPA. Teacher advisors are responsible for maintaining and renewing PA Virtual's local charters and monitoring student compliance with national and charter/chapter bylaws.

Qualifying students in honors courses are invited to apply to the local chapters of the subject-specific national honor societies based on each society's specific standards. Accepted members attend chapter meetings, hold elections for student leadership teams, discuss national bylaws and create original local chapter bylaws, set goals for implementing upcoming service and enrichment opportunities, and engage in various school and community-based initiatives.

National Honor Society

The National Honor Society (NHS) is the nation's premier organization established to recognize outstanding high school students. More than just an honor roll, NHS acknowledges students who have demonstrated excellence in scholarship, service, leadership, and character. NHS promotes scholarship and volunteerism.

Students in grades 10, 11, and 12 with a cumulative grade point average of 3.5 will be eligible to apply. Students eligible to apply will receive an introductory email inviting them to join NHS. All applicants are required to complete an application that consists of basic biographical information, leadership, and volunteer work. Applicants must also write an essay about themselves and submit three recommendations (two teachers and one community member). A faculty committee will review each application. Accepted students will be inducted during a virtual ceremony held each Fall.

Early Graduation Program

PA Virtual's Early Graduation Program allows high-achieving students the opportunity to graduate in three years. Students must apply for the program in the Spring of their Sophomore year and meet strict conditions for acceptance, including credit, Act 158, and GPA requirements. Students in the Early Graduation program still complete all state and school graduation requirements while working at a faster and more condensed pace than their peers. If you are interested in the Early Graduation Program, please contact your school counselor.

Incoming 11th and 12th-grade students are not eligible for the Early Graduation Program.

Independent Study Program

The Independent Study Program is designed for seniors or other graduation candidates who have exhausted available course offerings or demonstrate a specific need for Independent Study. The ideal applicant is a self-directed learner who expects to meet all stated outcomes with limited supervision. If you are interested in the Independent Study Program, please contact Laura Matjasic, Principal of Student of Advancement and Development at lmajasic@.

Dual Enrollment

Temple University

PA Virtual Charter School partners with the Temple University College of Education and Human Development to offer dual enrollment opportunities for eligible high school students. This program allows students to earn college credits while still in high school, with courses taught by Temple University faculty.

Temple dual enrollment courses are delivered fully online, enabling students from across the Commonwealth to participate from anywhere with an internet connection.

Students who successfully complete a Temple dual enrollment course earn college credit from Temple University as well as high school elective credit from PA Virtual Charter School. These credits are transferable to colleges and universities, providing students with a valuable head start on their postsecondary education.

To be considered for the program, students must be in 11th or 12th grade and demonstrate strong academic performance, including an A– or better in their current coursework, along with consistent engagement and attendance. PA Virtual Charter School fully covers the cost of tuition and all required fees for approved students.

Space in the program is limited, and enrollment is competitive. Eligible students are encouraged to apply promptly once program communications are released and to ensure all application requirements are completed by the established deadlines.

Penn State University

PA Virtual Charter School also offers students the opportunity to take college courses through our partnership with Penn State University. This program allows you to earn real college credits while still in high school and

experience the expectations of a Penn State class. Courses may be offered online or on campus, and options can change each semester, so there are always new opportunities to explore.

Through PA Virtual's partnership, students receive a 50% reduction in Penn State's in-state tuition rate, making this a significantly more affordable way to begin earning college credits. Families are responsible for paying the remaining tuition and any applicable fees, which are billed directly by Penn State.

In addition to earning college credit, students may also choose to apply to receive PA Virtual high school elective credit through the Independent Study program for a completed three-credit Penn State course. This is an optional opportunity and not required for participation in the program, but it allows students to maximize both college and high school credit at the same time. Combined with the 50% tuition discount, this program offers a valuable and cost-effective way to get ahead and invest in your future.

Credit Recovery

Credit Recovery is designed to allow eligible students to earn credit for up to **two failed classes** to recoup credit(s) needed for grade-level promotion or graduation. Students are eligible to enroll in Credit Recovery if they failed the course with a grade of 30 or higher. Credit Recovery consists of taking and completing the approved course(s) made available through our partnership with Educere. Courses are delivered virtually and primarily asynchronously. An instructor teaches each class, and an Educere Personal Learning Coach supports the student throughout the virtual education experience.

Once Educere provides PA Virtual Charter School with documentation of successful completion of the coursework, the credit is added to the PA Virtual transcript. *Course tuition is the responsibility of the student/family. PA Virtual does not receive any money from students taking Educere courses and is not associated with course delivery other than to approve the completed course for PA Virtual credit.*

Failing to take advantage of Credit Recovery options will result in the need to repeat complete courses during subsequent academic years and could result in insufficient credits for graduation. Students needing to register for Credit Recovery should contact their school counselor for registration information.

College-Level Athletics / NCAA-Approved Courses

Athletes wishing to play a Division I or II sport in college must adhere to the NCAA guidelines to ensure eligibility. PA Virtual Charter School courses that are NCAA-approved are marked with an asterisk (*) after the course title. For the most up-to-date information on the NCAA requirements, please visit www.ncaa.org.

If you want to play sports at an NCAA Division I or II school, start by registering for a Certification Account with the NCAA Eligibility Center at eligibilitycenter.org. If you want to play Division III sports or you aren't sure where you want to compete, start by creating a Profile Page at eligibilitycenter.org.

ACADEMIC REQUIREMENTS

To play sports at a Division I or II school, you must graduate from high school, complete 16 NCAA-approved core courses, earn a minimum GPA and earn an ACT or SAT score that matches your core-course GPA.

CORE COURSES

Only courses that appear on your high school's list of NCAA core courses will count toward the 16 core-course requirement; visit eligibilitycenter.org/courselist for a full list of your high school's approved core courses. Complete 16 core courses in the following areas:

DIVISION I

Complete 10 NCAA core courses, including seven in English, math or natural/physical science, before your seventh semester.

ENGLISH	MATH (Algebra I or higher)	NATURAL/ PHYSICAL SCIENCE (Including one year of lab, if offered)	ADDITIONAL (English, math or natural/physical science)	SOCIAL SCIENCE	ADDITIONAL COURSES (Any area listed to the left, foreign language or comparative religion/philosophy)
4 years	3 years	2 years	1 year	2 years	4 years

DIVISION II

ENGLISH	MATH (Algebra I or higher)	NATURAL/ PHYSICAL SCIENCE (Including one year of lab, if offered)	ADDITIONAL (English, math or natural/physical science)	SOCIAL SCIENCE	ADDITIONAL COURSES (Any area listed to the left, foreign language or comparative religion/philosophy)
3 years	2 years	2 years	3 years	2 years	4 years

GRADE-POINT AVERAGE

The NCAA Eligibility Center calculates your grade-point average based only on the grades you earn in NCAA-approved core courses.

- DI requires a minimum 2.3 GPA.
- DII requires a minimum 2.2 GPA.

SLIDING SCALE

Divisions I and II use sliding scales to match test scores and GPAs to determine eligibility. The sliding scale balances your test score with your GPA. If you have a low test score, you need a higher GPA to be eligible. Find more information about test scores at ncaa.org/test-scores.

TEST SCORES

You may take the SAT or ACT an unlimited number of times before you enroll full time in college. Every time you register for the SAT or ACT, use the NCAA Eligibility Center code 9999 to send your scores directly to us from the testing agency. We accept official scores only from the ACT or SAT, and won't use scores shown on your high school transcript. If you take either test more than once, the best subscore from different tests are used to give you the best possible score.

Credit Audit Form

SUBJECT AREA	COURSE TITLE	CREDITS EARNED
ENGLISH	4 CREDITS NEEDED	
MATH	4 CREDITS NEEDED	
SOCIAL STUDIES	3 CREDITS NEEDED	
SCIENCE	3 CREDITS NEEDED	
HUMANITIES (WORLD LANGUAGE AND/OR FINE ART)	2 CREDITS NEEDED	
PHYSICAL EDUCATION	1 CREDIT NEEDED	
HEALTH	0.5 CREDIT NEEDED	
CAREER	0.5 CREDIT NEEDED	
Capstone GRADUATION PROJECT	0.5 CREDIT NEEDED	
ELECTIVES	2.5 CREDITS NEEDED	
ACT 158 PATHWAY	Review the Pathways to Graduation PDE Guide (choose 1)	
	Keystone Proficiency Pathway	☐
	Keystone Composite Pathway	☐
	Alternative Assessment and/or Evidence-based Pathway	☐
21 TOTAL CREDITS NEEDED GRAND TOTAL =		

Course Offerings & Descriptions

****Note:** Course offerings are subject to change based on Imagine Learning's Edgenuity course catalog revisions and on course enrollment numbers.**

English Courses

ENGLISH LANGUAGE ARTS 9 *

1 CREDIT

Prerequisite:
Grade 8 English

This yearlong course engages students in literary analysis and inferential evaluation of great texts, both classic and contemporary. While critically reading fiction, poetry, drama, and literary nonfiction, students master comprehension and literary analysis strategies. Interwoven in the lessons across two semesters are activities encouraging students to strengthen their oral language skills and produce clear, coherent writing. Students read classic texts, including Homer's *The Odyssey*, Shakespeare's *Romeo and Juliet*, and Richard Connell's "The Most Dangerous Game." They will also study short but complex texts, including influential speeches by Dr. Martin Luther King Jr., Franklin D. Roosevelt, and Ronald Reagan. Contemporary texts by Richard Preston, Julia Alvarez, and Maya Angelou round out the course.

ENGLISH LANGUAGE ARTS 9 HONORS *

1 CREDIT

Prerequisite:
Grade 8 English (90% or Higher) or Teacher Recommendation

This yearlong course invites students to explore a variety of diverse and complex texts organized into thematic units. Students engage in literary analysis and inferential evaluation of classic and contemporary great texts. While critically reading fiction, poetry, drama, and literary nonfiction, honors students master comprehension, use evidence to conduct in-depth literary analysis, and examine and critique how authors develop ideas in various genres. Interwoven throughout the lessons are activities that encourage students to strengthen oral language skills, research and critically analyze sources of information, and produce clear, coherent writing. Honors students engage in additional opportunities to create and participate in project-based learning activities, including writing a Shakespearian sonnet and creating an original interpretation of a Shakespearian play. Honors students read classic texts, including Homer's *The Odyssey*, Shakespeare's *Romeo and Juliet*, Jack London's "To Build a Fire" and Richard Connell's "The Most Dangerous Game." Students also read Sue Macy's full-length nonfiction work *Wheels of Change: How Women Rode the Bicycle to Freedom (With a Few Flat Tires Along the Way)* and study a variety of short but complex texts, including influential speeches by Dr. Martin Luther King Jr., Franklin D. Roosevelt, and Ronald Reagan. Contemporary texts by Richard Preston, Julia Alvarez, and Maya Angelou round out the course.

Literacy Skills * (English 10 companion course)

.5 ELECTIVE
CREDIT

Prerequisite:
9th-grade English, Benchmarking Results, and Administrative Approval

This semester-long, sophomore-year elective course is taken concurrently with English Language Arts 10 (below) and focuses on the foundational skills of writing, vocabulary, and analysis of mostly non-fiction. 10th-graders will administratively enroll in this English elective course based on 9th-grade ELA achievement and benchmarking (Map Growth) scores. The course leads students to improved literacy comprehension, text handling and analysis, and written expression across all subjects through instruction in reading and writing skills, vocabulary practice, reading levels, and helpful strategy tips.

ENGLISH LANGUAGE ARTS 10 ***1 CREDIT***Prerequisite:**English Language Arts 9*

This yearlong course reinforces literary analysis and twenty-first-century skills with superb pieces of literature and literary nonfiction, application e-resources, and educational interactives. Each thematic unit focuses on specific literary analysis skills and allows students to apply them to various genres and text structures. As these units meld modeling and application, they also include training in media literacy, twenty-first-century career skills, and the essentials of grammar and vocabulary. Under the guidance of the eWriting software, students compose descriptive, persuasive, expository, literary analysis, research, narrative, and compare-contrast essays. **This course culminates in students taking the required state Keystone exam in English Language Arts.**

ENGLISH LANGUAGE ARTS 10 HONORS ***1 CREDIT***Prerequisite:**English Language Arts 9 (90% or Higher) or Teacher Recommendation*

This yearlong course provides engaging and rigorous lessons on academic inquiry to strengthen language arts knowledge. Reading lessons require analyzing complex texts, while concise mini-lessons advance writing and research skills to craft solid and compelling essays and projects. Students write argumentative and analytical essays based on literary texts and informative research papers using MLA style. Students read various classic and contemporary literary texts, including Henrik Ibsen's *A Doll's House*, George Orwell's *Animal Farm*, and Marjane Satrapi's *Persepolis*. Students read and analyze complex informational and argumentative texts, including Sonia Sotomayor's "A Latina Judge's Voice," Niccolò Machiavelli's *The Prince*, and the contemporary informational text *Sugar Changed the World: A Story of Magic, Spice, Slavery, Freedom, and Science*. **This course culminates in students taking the required state Keystone exam in English Language Arts.**

ENGLISH LANGUAGE ARTS 11 ***1 CREDIT***Prerequisite:**English Language Arts 10*

This yearlong course invites students to delve into American literature from early American Indian voices through contemporary works. Students engage in literary analysis and inferential evaluation of great texts as the centerpieces of this course. While critically reading fiction, poetry, drama, and expository nonfiction, students master comprehension and literary analysis strategies. Interwoven in the lessons across two semesters are tasks that encourage students to strengthen their oral language skills and produce creative, coherent writing. Students read a range of short but complex texts, including works by Ralph Waldo Emerson, Emily Dickinson, Herman Melville, Nathaniel Hawthorne, Paul Laurence Dunbar, Martin Luther King, Jr., F. Scott Fitzgerald, Sandra Cisneros, Amy Tan, and Dave Eggers.

ENGLISH LANGUAGE ARTS 11 HONORS ***1 CREDIT***Prerequisite:**English Language Arts 10 (90% or Higher) or English Language Arts 10 Honors, or Teacher Recommendation*

This yearlong course invites students to delve into American literature from early American Indian voices through contemporary works. Students engage in literary analysis and inferential evaluation of great texts, including the full-length novel *The Awakening* by Kate Chopin. While critically reading fiction, poetry, drama, and expository nonfiction, honors students master comprehension, use evidence to conduct in-depth literary analysis, and examine and critique how authors develop ideas in various genres. Interwoven throughout the lessons are activities that encourage students to strengthen oral language skills, research and critically analyze sources of information, and produce clear, coherent writing. Students read a range of short but complex texts by Henry David Thoreau, Floyd Dell, Emily Dickinson, Herman Melville, Nathaniel Hawthorne, Paul Laurence Dunbar, Martin Luther King, Jr., F. Scott Fitzgerald, Sandra Cisneros, Amy Tan, and Dave Eggers.

ENGLISH LANGUAGE ARTS 12 ***1 CREDIT***Prerequisite:*

English Language Arts 11

This yearlong course offers a fascinating insight into British literary traditions from Anglo-Saxon writing to the modern period. With interactive introductions and historical contexts, this full-year course connects philosophical, political, religious, ethical, and social influences of each period to the works of many notable authors, including Chaucer, William Shakespeare, Queen Elizabeth I, Elizabeth Barrett Browning, and Virginia Woolf. Adding an extra dimension to the British literary experience, this course also exposes students to world literature, including works from India, Europe, China, and Spain.

INTRODUCTION TO COMMUNICATIONS AND SPEECH *

1 CREDIT

Prerequisite:

English Language Arts 12 (Can be Taken Concurrently)

This yearlong course offers a fascinating insight into verbal and nonverbal messages and cultural and gender differences in listening and responding, beginning with an introduction that builds student understanding of the elements, principles, and characteristics of human communication. Students enrolled in this full-year course are guided through engaging lectures and interactive activities, exploring themes of self-awareness and perception in communication. The course concludes with units on informative and persuasive speeches, and students analyze speeches in the course.

ENGLISH LANGUAGE ARTS 12 HONORS *

1 CREDIT

Prerequisite:

English Language Arts 11 (90% or Higher) or English Language Arts 11 Honors, or Teacher Recommendation

This yearlong course invites students to delve into British literature from ancient texts such as the epic of Beowulf through contemporary works. Students engage in rigorous lessons focusing on academic inquiry, literary analysis, and inferential evaluation. While critically reading fiction, poetry, drama, and expository nonfiction, honors students master comprehension, use evidence to conduct in-depth literary analysis, examine and critique how authors develop various genres, and synthesize ideas across multiple texts. In addition to activities offered to students in core courses, honors students have additional opportunities to create and participate in project-based learning activities, including creating a time travel brochure and an original interpretation of William Shakespeare's The Tragedy of Hamlet.

AP ENGLISH LANGUAGE & COMPOSITION *

1 CREDIT

Prerequisite:

English Language Arts 10 (90% or Higher) or English Language Arts 10 Honors, and Teacher Recommendation

This yearlong college-level course prepares students for the AP English Language and Composition Exam while exploring and analyzing a variety of rhetorical contexts. AP English Language and Composition is a fast-paced, upper-level course for highly motivated students. Students enhance test-taking skills through critical reading, writing, classroom assignments, discussion activities, and AP practice assessments and essays. Students increase their prose knowledge of many styles and genres, including essays, journalistic writing, political writing, science writing, nature writing, autobiographies/biographies, diaries, speeches, history writing, and critical writing. There is an intense focus on writing and revising expository, analytical, and argumentative essays to prepare students for various writing purposes.

AP ENGLISH LITERATURE & COMPOSITION *

1 CREDIT

Prerequisite:

English Language Arts 11 (90% or Higher) or English Language Arts 11 Honors, AP English Language & Composition, and Teacher Recommendation

This yearlong college-level course equips students to critically analyze all forms of literature and comment insightfully about an author's or genre's use of style or literary device. Students interpret meaning based on form, examine the trademark characteristics of literary genres and periods, and critique literary works through expository, analytical, and argumentative essays. As students consider styles and devices, they apply them to their creative writing. In addition to exposing students to college-level English coursework, this course prepares them for the AP English Literature and Composition Exam.

Mathematics Courses

ALGEBRA 1A

1 CREDIT

Prerequisite:

Grade 8 Math and Benchmarking Results

This yearlong course is for students who have completed the middle school mathematics sequence and are ready to begin learning high school Algebraic concepts. This course revisits fundamental Algebra readiness skills from the middle grades and delves deeper into core Algebra I topics. Students will expand their mathematical fluency and problem-solving abilities by rigorously exploring numbers and operations, expressions and equations, ratios and proportions, and basic functions. This course serves as a stepping stone in preparing students for the Algebra Keystone exam, taken toward the conclusion of Algebra 1B.

ALGEBRA 1B*

1 CREDIT

Prerequisite:

Algebra 1A, Benchmarking Results, or Teacher Recommendation

This yearlong course focuses on five critical areas: relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. This course builds on the foundation set in middle grades/Algebra 1A by deepening students' understanding of linear and exponential functions and developing fluency in writing and solving one-variable equations and inequalities. Students interpret, analyze, compare, and contrast functions represented numerically, tabularly, graphically, and algebraically. Quantitative reasoning is a common thread throughout the course, as students use algebra to represent quantities and the relationships among those quantities in various ways. Mathematical practice and process standards are embedded throughout the course, as students make sense of problem situations, solve novel problems, reason abstractly, and think critically. **This course culminates in students taking the required state Keystone exam in Algebra.**

ALGEBRA 1

1 CREDIT

Prerequisite:

Grade 8 Honors Math (80% or higher), Benchmarking Results, or Teacher Recommendation

This yearlong course revolves around five crucial areas: understanding relationships between quantities and equations, mastering linear and exponential relationships, exploring descriptive statistics, diving into expressions and equations, and grappling with quadratic functions and modeling. It builds on middle grades concepts, aiming to deepen understanding of linear and exponential functions while honing skills in solving equations and inequalities. Students analyze functions in various forms and contexts, focusing on quantitative reasoning. Mathematical practice and process standards are integrated, fostering problem-solving, abstract reasoning, and critical thinking. **This course culminates in students taking the required state Keystone exam in Algebra.**

GEOMETRY ***1 CREDIT***Prerequisite:**Algebra I*

This yearlong course formalizes what students learned about geometry in the middle grades, focusing on reasoning and making mathematical arguments. Mathematical reasoning is introduced by studying triangle congruence, including exposure to formal proofs and geometric constructions. Then, students extend what they have learned to other essential triangle concepts, including similarity, right triangle trigonometry, and the laws of sines and cosines. Moving on to other shapes, students justify and derive various formulas for circumference, area, volume, and cross-sections of solids and rotations of two-dimensional objects. Students then make important connections between geometry and algebra, including special triangles, slopes of parallel and perpendicular lines, and parabolas in the coordinate plane, before delving into an in-depth investigation of the geometry of circles. The course closes with a study of set theory and probability, as students apply theoretical and experimental probability to make decisions informed by data analysis.

GEOMETRY HONORS ***1 CREDIT***Prerequisite:**Algebra I (90% or Higher) or Algebra I Honors, or Teacher Recommendation*

This yearlong course begins by exploring the foundational concepts of Euclidean Geometry in which students learn the terminology of geometry, measuring, proving theorems, and constructing figures. Students expand on their knowledge of transformations, complete an assignment on identifying point symmetry, and complete a performance task on tessellations. The course continues with an in-depth look at triangles, where students prove theorems, relating congruence and similarity in transformations and connecting right triangle relationships to trigonometry. Students study set theory and apply probability through theoretical and experimental probability, two-way tables, and combinations and permutations. With lessons on quadrilaterals, students identify the various figures based on their key features. Within the circle units, students identify angles, radii, and chords, perform a performance-based task on tangents, and then compute the circumference and area of various circles. Then, students study parabolas, ellipses, and hyperbolas before modeling and computing two- and three-dimensional figures.

ALGEBRA II ***1 CREDIT***Prerequisite:**Geometry or Geometry Honors*

This yearlong course focuses on functions, polynomials, periodic phenomena, and collecting and analyzing data. The course begins with a review of linear and quadratic functions to solidify a foundation for learning these new functions. Students make connections between verbal, numeric, algebraic, and graphical representations of functions and apply this knowledge as they create equations and inequalities used to model and solve mathematical and real-world problems. As students refine and expand their algebraic skills, they draw analogies between operations and field properties of real numbers and those of complex numbers and algebraic expressions. Mathematical practices and habits of mind are embedded throughout the course as students solve novel problems, reason abstractly, and think critically.

ALGEBRA II HONORS ***1 CREDIT***Prerequisite:**Geometry (90% or Higher) or Geometry Honors, or Teacher Recommendation*

The yearlong course begins with a review of concepts that assist students throughout the course, such as literal equations, problem-solving, and word problems. Students progress to a unit on functions, computing operations, composing functions, and studying inverses of functions. Students learn about complex numbers and apply them to quadratic functions by completing the square and quadratic formula methods to build on their algebraic skills. Next, students solve linear systems and apply their knowledge of the concept to three-by-three systems. An in-depth study of polynomial operations and functions allows students to build their knowledge of polynomials algebraically and graphically. In the second semester, students study nonlinear functions. Students solve and graph rational and radical functions, whereas the exponential and logarithmic functions focus on the key features and transformations of the functions. Expected value and normal distribution concepts expand and deepen students' knowledge of probability and statistics. Students also cover trigonometric functions and periodic phenomena.

PRECALCULUS ***1 CREDIT***Prerequisite:**Algebra II or Algebra II Honors*

This yearlong course emphasizes function families and their representations. Precalculus is a thoughtful introduction to advanced studies leading to calculus. The course briefly reviews linear equations, inequalities, and systems and moves purposefully into studying functions. Students then discover the nature of graphs and deepen their understanding of polynomial, rational, exponential, and logarithmic functions. Scaffolding rigorous content with clear instruction, the course leads students through an advanced study of trigonometric functions, matrices, and vectors. The course concludes with a short study of probability and statistics.

PRECALCULUS HONORS ***1 CREDIT***Prerequisite:**Algebra II (90% or Higher) or Algebra II Honors, or Teacher Recommendation*

This yearlong advanced math course starts with a unit on the nature of functions and complex numbers before moving into matrices, systems, and linear programming. Students return to functions, focusing on graphing various function types and completing a performance task on production schemes. Students explore rational functions in-depth and conclude the first semester with right triangle and circular trigonometry. In the second half of the course, students synthesize what they have learned to graph and solve trigonometric functions. They also study vectors, conics and analytic geometry, statistics and probability, mathematical modeling, and sequences and series.

STATISTICS AND PROBABILITY ***1 CREDIT***Prerequisite:**Geometry or Geometry Honors*

This yearlong course provides an alternative math credit for students who may not wish to pursue more advanced mathematics courses such as Algebra II and Pre-Calculus. The first half of the course begins with an in-depth study of probability and an exploration of sampling and comparing populations. It closes with units on data distribution and data analysis. In the second half of the course, students create and analyze scatter plots and study two-way tables and normal distributions. Finally, students apply probability to conditional probability, combinations, permutations, and sets.

FINANCIAL MATH

1 CREDIT

Prerequisite: NONE

This yearlong course connects practical mathematical concepts to personal and business settings, offering informative and beneficial lessons that challenge students to gain a deeper understanding of financial math. Relevant, project-based learning activities cover stimulating topics such as personal financial planning, budgeting and wise spending, banking, paying taxes, the importance of insurance, long-term investing, buying a house, consumer loans, economic principles, traveling abroad, starting a business, and analyzing business data. This course encourages mastery of math skill sets, including percentages, proportions, data analysis, linear systems, and exponential functions.

AP CALCULUS AB

1 CREDIT

Prerequisite:

Precalculus (90% or Higher) or Precalculus Honors, or Teacher Recommendation

This yearlong, college-level course prepares students for the Advanced Placement (AP) Calculus AB Exam. Major study topics include a review of pre-calculus, limits, derivatives, definite integrals, mathematical modeling of differential equations, and the applications of these concepts. There is an emphasis on using technology to solve problems and draw conclusions. The course utilizes a multi-representative approach to calculus with concepts and problems expressed numerically, graphically, verbally, and analytically.

AP STATISTICS

1 CREDIT

Prerequisite:

Algebra II (90% or higher) or Algebra II Honors, Statistics and Probability, or Teacher Recommendation

This yearlong, college-level course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students cultivate their understanding of statistics using technology, investigations, problem-solving, and writing as they explore concepts like variation and distribution, patterns and uncertainty, and data-based predictions, decisions, and conclusions.

Social Studies Courses

GEOGRAPHY *

1 CREDIT

Prerequisite: NONE

This yearlong course studies current global issues that impact the world using a thematic approach to understanding the development of human systems, human understanding of the world, and human social organization. This course challenges students to develop geographic skills, including learning to interpret maps, analyze data, and compare theories. This course encourages students to analyze economic trends and compare global markets and urban environments by offering interactive content that grows students' understanding of the development of modern civilization and human systems—from the agricultural revolution to the technological revolution.

GEOGRAPHY HONORS ***1 CREDIT***Prerequisite:**Grade 8 History (90% or Higher) or Teacher Recommendation*

In this advanced yearlong course, students examine current global issues and their impact on today's world. Using a thematic approach, students explore the development of human systems, human understanding of the world, and human social organization. Throughout the course, students expand their geographic skills, including learning to interpret maps, analyze data, and compare theories. Geography Honors includes interactive content that facilitates the growth of students' understanding of the development of modern civilization and human systems, framed by analyzing economic trends and comparing global markets and urban environments.

U.S. HISTORY ***1 CREDIT***Prerequisite:**Geography*

This yearlong course dynamically explores the people, places, and events that shaped early United States history. This course stretches from the Era of Exploration through the Industrial Revolution, leading students to examine the defining moments that shaped today's nation. Students begin by exploring the colonization of the New World and discussing the foundations of colonial society. As they study the early history of the United States, students learn critical thinking skills by examining the constitutional foundations of the U.S. government. In the context of how these issues contributed to the Civil War and Reconstruction, students will examine recurring themes such as territorial expansion, the rise of industrialization, and the significance of slavery.

U.S. HISTORY HONORS ***1 CREDIT***Prerequisite:**Geography (90% or Higher) or Geography Honors, or Teacher Recommendation*

This yearlong course explores the first colonial settlements through the Gilded Age and industrialization. Students embark on a rigorous study of US beginnings and investigate the political, social, cultural, intellectual, and technological revolutions of the United States that have helped to lay its foundation. Units start with an in-depth look at the first settlements and European explorations that eventually led to colonization. Students study the events and outcomes of the American Revolution, the Constitution's creation, and the government's beginnings. Students examine manifest destiny and slavery, leading to the Civil War, and its implications. Students continuously analyze primary and secondary sources relating to the period of study. Incorporating activities from other disciplines allows students to connect history to different subjects. Students read selections like "Your People Live Only Upon Cod" and poetry like "The New Colossus" by Emma Lazarus.

WORLD HISTORY ***1 CREDIT***Prerequisite:**U.S. History or Teacher Recommendation*

In this comprehensive yearlong course, students follow the history of the world from 1450 to modern times. Many eras and events are studied, considering them through examinations of geography and both political and social history. Looking at history chronologically, regionally, and thematically, major class topics include imperialism, colonialism, the Industrial Revolutions, the World Wars, the Cold War, and the contemporary world. Students examine the historical record using maps and primary sources and develop historical thinking and writing skills.

WORLD HISTORY HONORS ***1 CREDIT***Prerequisite:**U.S. History (90% or Higher) or U.S. History Honors, or Teacher Recommendation*

In this advanced yearlong course, students track the history of the world from 1450 to the present, examining several different eras and events, considering geography and political and social history. Looking at history

chronologically, regionally, and thematically, major class topics include imperialism, colonialism, the Industrial Revolutions, the World Wars, the Cold War, and the contemporary world. Students analyze themes of human history by investigating the historical record using maps and primary sources and further develop historical thinking and writing skills.

AP UNITED STATES HISTORY *

1 CREDIT

Prerequisite:

Completion of 2 history credits (90% or Higher) or 2 honors history credits

This yearlong, college-level course surveys the history of the United States from the settlement of the New World to modern times and prepares students for the AP United States History Exam. The course emphasizes national identity, economic transformation, immigration, politics, international relations, geography, and social and cultural change. Students learn to assess historical materials, weigh the evidence and interpretations presented in historical scholarship, and analyze and express historical understanding in writing.

Science Courses

EARTH AND SPACE SCIENCE *

1 CREDIT

Prerequisite: NONE

This yearlong course explains phenomena central to the earth and space sciences and students' daily lives. Students understand the universe and explore Earth's history, structure, weather, biosphere, hydrosphere, atmosphere, resources, and humans' impact on Earth's resources. The course includes interactive real-world examples throughout the lessons and application projects, interactive lab simulations, and hands-on lab options. Earth and Space Science provides a solid foundation for understanding the physical characteristics that make Earth unique and examines how these characteristics differ among the planets of our solar system.

EARTH AND SPACE SCIENCE HONORS *

1 CREDIT

Prerequisite:

Grade 8 Science (90% or Higher) or Teacher Recommendation

This rigorous yearlong course explores in-depth phenomena central to Earth and space sciences and their connection to students' daily lives. Students gain a broad understanding of the universe while examining Earth's history, structure, weather, biosphere, hydrosphere, atmosphere, and human impact on natural resources. The course features real-world examples, interactive simulations, and hands-on lab options, providing a strong foundation for understanding what makes Earth unique and how it compares to other planets.

ENVIRONMENTAL SCIENCE

1 CREDIT

Prerequisite: Benchmarking Results

This yearlong course surveys critical topics, including applying scientific processes to environmental analysis, ecology, energy flow, ecological structures, biochemistry, biogeochemical cycles, and more. Students explore and conduct hands-on, unit-long research projects. Students apply the scientific method and process, including creating hypotheses, experimentation, proper data collection, visualization of data, and drawing reliable conclusions.

BIOLOGY ***1 CREDIT***Prerequisite: NONE*

This yearlong course engages students in studying life and living organisms and examines biology and biochemistry in the real world. The course encompasses traditional concepts in biology and encourages the exploration of discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology. This course consists of both hands-on wet labs and virtual lab options. **This course culminates in students taking the required state Keystone exam in Biology.**

BIOLOGY HONORS ***1 CREDIT***Prerequisite:**Earth & Space Science (90% or Higher) or Earth & Space Science Honors, or Teacher Recommendation*

This yearlong course engages students in a rigorous honors-level curriculum that emphasizes the study of life and its real-world applications. This course examines biological concepts in more depth than general biology and provides a solid foundation for college-level coursework. Course components include biochemistry, cellular structures and functions, genetics and heredity, bioengineering, evolution, structures and functions of the human body, and ecology. Throughout the course, students participate in various interactive and hands-on laboratory activities that enhance concept knowledge and develop scientific process skills, including scientific research and technical writing. **This course culminates in students taking the required state Keystone exam in Biology.**

PHYSICAL SCIENCE ***1 CREDIT***Prerequisite:**Biology*

This yearlong course introduces basic concepts in chemistry and physics while encouraging exploration of key discoveries in physical science. Students examine scientific principles and procedures, the chemical building blocks of matter, and the forces and properties that affect motion and energy on Earth. The course also covers electricity and magnetism and their effects. As students expand their understanding, they apply knowledge through interactive virtual labs that involve questioning and hypothesis-building, with hands-on wet lab options available.

CHEMISTRY ***1 CREDIT***Prerequisite:**Biology or Honors Biology*

This rigorous yearlong course engages students in studying the composition, properties, changes, and interactions of matter. The course covers basic chemistry concepts and includes eighteen virtual laboratory experiments encouraging higher-order thinking applications with wet lab options. The components of this course include chemistry and its methods, the composition and properties of matter, changes and interactions of matter, factors affecting the interactions of matter, electrochemistry, organic chemistry, biochemistry, nuclear chemistry, mathematical applications, and chemistry applications in the real world.

CHEMISTRY HONORS ***1 CREDIT***Prerequisite:**Biology (90% or Higher) OR Biology Honors**2. Teacher Recommendation*

This rigorous yearlong course provides students with an engaging honors-level curriculum emphasizing mathematical problem-solving and practical applications of chemistry. Topics are examined in greater detail than general chemistry to prepare students for college-level coursework and include atomic theory and structure, chemical bonding, states and changes of matter, chemical and redox reactions, stoichiometry, gas laws, solutions, acids and bases, and nuclear and organic chemistry. Students participate in various interactive and hands-on laboratory activities that enhance concept knowledge and develop scientific process skills, including scientific research and technical writing.

PHYSICS ***1 CREDIT***Prerequisite:**Chemistry or Honors Chemistry, and Algebra 2 (Can be Taken Concurrently)*

This yearlong course acquaints students with classical and modern physics topics, emphasizing a conceptual understanding of basic physics principles, including Newtonian mechanics, energy, thermodynamics, waves, electricity, magnetism, and nuclear and modern physics. Throughout the course, students solve mathematical problems, reason abstractly, and learn to think critically about the physical world. The course also includes interactive virtual labs and hands-on lab options in which students ask questions and create hypotheses.

PHYSICS HONORS ***1 CREDIT***Prerequisite:**Chemistry (90% or Higher) or Chemistry Honors, Precalculus (Can be Taken Concurrently), or Teacher Recommendation*

This rigorous yearlong honors course emphasizes abstract reasoning and the application of physics concepts to real-world scenarios. It offers a more in-depth examination than general physics and builds a strong foundation for college-level study. Topics include motion, momentum, energy, thermodynamics, waves, electricity, magnetism, and nuclear and modern physics. Students engage in interactive and hands-on labs that reinforce key concepts while building scientific research and technical writing skills.

ANATOMY AND PHYSIOLOGY ***1 CREDIT***Prerequisite:**Biology and Algebra IB (80% or Higher) or Teacher Recommendation*

This yearlong course offers a rigorous study of human body systems and their functions, with a focus on structure, integration, and homeostasis. Students explore the skeletal, muscular, circulatory, respiratory, digestive, nervous, endocrine, reproductive, urinary, and immune systems through detailed lessons and virtual simulations. Medical terminology, common disorders, and healthcare careers are integrated throughout, as students build critical thinking, observation, and technical writing skills essential for advanced study in health and science fields.

AP BIOLOGY ***1 CREDIT +
.5 for Lab***Prerequisite:**Biology (90% or Higher) or Biology Honors, or Teacher Recommendation*

This yearlong college-level course prepares students for the Advanced Placement (AP) Biology exam. Units of study include Biochemistry, Cells, Enzymes and Metabolism, Cell Communication and Cell Cycle, Gene Expression, Evolution and Genetic Diversity, and Ecology. This course consists of an additional .5-credit AP Biology Lab course that meets synchronously twice weekly. The lab section focuses on virtual lab activities, simulations, and data analysis related to the course content.

AP ENVIRONMENTAL SCIENCE ***1 CREDIT +***Prerequisite:***.5 for Lab***Chemistry (90% or Higher) Chemistry Honors, or Teacher Recommendation*

This yearlong course is equivalent to a one-semester, college-level ecology course and provides students with the knowledge and skills to understand interrelationships in nature, analyze environmental issues, and explore solutions. Lab and field activities are completed virtually using at-home materials, and the course includes a separate 0.5-credit AP Environmental Lab that meets synchronously twice a week. Topics include population dynamics, energy flow, resource use, environmental quality, human impact, and environmental law.

Humanities Courses: World Language

SPANISH I ***1 CREDIT***Prerequisite: NONE*

This yearlong course introduces students to high school Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

SPANISH II ***1 CREDIT***Prerequisite:**Spanish I*

This yearlong course continues introducing Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, cultural presentations covering major Spanish-speaking areas in Europe and the Americas, and assessments.

SPANISH III ***1 CREDIT***Prerequisite:**Spanish II*

This yearlong course further engages students with Spanish, deepening their focus on four essential skills in foreign language acquisition: listening comprehension, speaking, reading, and writing. In addition, students read significant works of literature in Spanish and respond orally or in writing to these works. Continuing the pattern and building on what students encountered in the first two years, each unit consists of a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

FRENCH I ***1 CREDIT***Prerequisite: NONE*

In this yearlong course, students begin their introduction to French with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major French-speaking areas in Europe and across the globe.

FRENCH II ***1 CREDIT***Prerequisite:*
French I

In this yearlong course, students continue their introduction to French by reviewing fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, new vocabulary theme and grammar, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, cultural presentations covering major French-speaking areas across the globe, and assessments.

GERMAN I ***1 CREDIT***Prerequisite: NONE*

In this yearlong course, students begin their introduction to German with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and cultural presentations covering major German-speaking areas in Europe.

GERMAN II ***1 CREDIT***Prerequisite:*
German I

In this yearlong course, students continue their introduction to German by reviewing fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and cultural presentations covering major German-speaking areas in Europe.

Humanities Courses: Fine Art

ART HISTORY I**1 CREDIT***Prerequisite: NONE*

This yearlong course offers high school students an overview of art throughout history, with lessons organized by chronological and historical order and world regions. Students enrolled in this course cover topics including early medieval and Romanesque art; art in the twelfth, thirteenth, and fourteenth centuries; fifteenth-century art in Europe; sixteenth-century art in Italy; the master artists; High Renaissance and baroque art; world art, which includes the art of Asia, Africa, the Americas, and the Pacific cultures; eighteenth- and nineteenth-century art in Europe and the Americas; and modern art in Europe and the Americas.

MUSIC APPRECIATION**1 CREDIT***Prerequisite: NONE*

This yearlong course introduces students to the history, theory, and genres of music. The course explores the history of music, from the surviving examples of rudimentary musical forms to contemporary pieces from around the world. The first section covers early musical forms, classical music, and American jazz. The second section presents modern traditions, including gospel, folk, soul, blues, Latin rhythms, rock and roll, and hip hop. The course explores the relationship between music and social movements and reveals how the emergent global society and the prominence of the Internet are making musical forms more accessible worldwide.

CAREERS IN ART & DESIGN**

Prerequisite: Course directly related to career goal, teacher recommendation

1 CREDIT

This yearlong rigorous course is ideal for students **pursuing careers** in visual art, illustration, graphic design, animation, fashion, or digital media. Students will develop professional portfolios, explore creative industry careers, and use digital tools to bring their creations to life. Emphasis is placed on building both traditional and digital skills, creative problem-solving, and presenting work with confidence. Designed for motivated and gifted learners, this course prepares students for future study or opportunities in the arts.

CAREERS IN MUSIC AND MUSIC APPRECIATION**

Prerequisite: Course directly related to career goal, teacher recommendation

1 CREDIT

This yearlong, hands-on, **musician-centered** course is designed for vocalists, instrumentalists, and composers who are passionate about music and interested in exploring it through both performance and academic lenses. Students will study major musical styles and historical movements while developing core skills in music theory, composition, and creative collaboration. The course emphasizes applied learning through ensemble listening, performance analysis, and multimedia projects. Career exploration is woven throughout the course, helping students connect their talents to real-world opportunities in performance, production, education, and the music industry.

Required Physical Education Courses

LIFETIME FITNESS I

Required for all 9th-grade Students

.25 CREDIT

This one-quarter class introduces students to skills necessary for achieving lifetime fitness. Students begin to understand the process of creating and implementing a fitness program to meet their individual fitness goals. Topics include the basics of physical fitness, fitness as a lifestyle, developing a positive attitude towards physical fitness and its benefits, constructing a fitness program, cultivating the awareness of environmental conditions and safety issues, as well as how to avoid common injuries that can occur when incorporating physical fitness into a lifestyle. Students also receive an introduction to first aid and CPR techniques.

LIFETIME FITNESS II

Required for all 10th-grade Students

.25 CREDIT

This one-quarter class builds upon the foundations students learned in Lifetime Fitness 1. In Lifetime Fitness 2, students gain a deeper understanding of how the body systems work together in relation to physical activity and lifetime fitness. Topics covered include movement and stability, developing activities for cardiovascular fitness, the skeletal, muscular, and nervous systems, developing muscular strength and endurance, and a deeper exploration of safe weight training and exercises promoting muscular fitness. Students also review crucial first aid and CPR techniques.

LIFETIME FITNESS III

Required for all 11th-grade Students

.25 CREDIT

This one-quarter course combines health education and self-directed physical activity to provide high school students with the knowledge and skills to live an active lifestyle. Students will explore fundamental concepts such as goal-setting, designing a workout plan, strength training basics, training principles, nutrition, and more. Throughout our course, students will develop a personalized fitness program that incorporates weekly goals and activities while engaging in five hours of physical activity per week. These activities include things like

traditional sports, resistance training, cardiovascular activities, and outdoor recreation, all tailored to accommodate students of diverse interests and abilities.

LIFETIME FITNESS III Honors

.25 CREDIT

Prerequisite: 85% or Higher in Lifetime Fitness 2

This one-quarter honors course combines health education with self-directed physical activity to optimize sports performance and training outcomes. Students will move beyond fundamental concepts to critically analyze goal-setting, personalized workout plans, training for hypertrophy, functional anatomy, nutrition for performance, and more. Throughout our course, students will develop a personalized fitness program that incorporates weekly goals and activities while engaging in five hours of physical activity per week. These activities include things like traditional sports, strength training, cardiovascular training, and outdoor recreation, all tailored to accommodate students of diverse interests and abilities.

LIFETIME FITNESS IV

.25 CREDIT

Required for all 12th-grade Students

This one-quarter course is designed specifically for graduating students to provide essential health and fitness knowledge needed to transition into adulthood. We will explore fundamental topics such as improving athletic performance, heart-rate zones, injury prevention, integrating technology, maintaining a lifestyle of fitness, and more. As they have done in previous Lifetime Fitness courses, students will develop a personalized fitness program that incorporates weekly goals and activities while engaging in five hours of physical activity per week. This course aims to empower graduating students to take ownership of their health and make positive choices that support a fulfilling and healthy lifestyle beyond high school.

LIFETIME FITNESS IV Honors

.25 CREDIT

Prerequisite: 85% or Higher in Lifetime Fitness 3

This one-quarter honors course is designed specifically for graduating students to provide personalized health and fitness knowledge needed to transition into adulthood. Students will move beyond fundamental concepts to critically analyze improving athletic performance, exercise physiology, injury prevention and recovery, integrating technology, maintaining a lifestyle of fitness, and more. As they have done in previous Lifetime Fitness courses, students will develop a personalized fitness program that incorporates weekly goals and activities while engaging in five hours of physical activity per week. This course aims to empower graduating students to take ownership of their health and make positive choices that support a fulfilling and healthy lifestyle beyond high school.

Health Courses

CONTEMPORARY HEALTH

.5 CREDIT

Prerequisite: NONE

This one-semester course allows teenagers to examine all aspects of healthy and active lifestyles. Students explore personal fitness, nutrition, preventing injury, substance abuse, human development, communication strategies, mental health, community health issues, and more. This course emphasizes developing critical thinking skills and decision-making abilities for navigating complex health-related problems. Through interactive lessons, discussions, and practical activities, students will gain the confidence to make well-informed health decisions regarding their physical, mental/emotional, and social health.

ADVANCED HEALTH

Prerequisite: Contemporary Health (80% or Higher)

**.5 ELECTIVE
CREDIT**

This semester-long elective health course challenges high school students to explore the concepts of health, fitness, and wellness and the foundations of anatomy and physiology. Students will expand on health topics learned in Contemporary Health embedded in the major body systems, basic medical terminology, nutrition, exercise, and health maintenance. This course provides students with a strong core knowledge base and skills for exploring health science career pathways.

CAREERS IN HEALTH & EXERCISE SCIENCE

**.5 ELECTIVE
CREDIT**

This semester-long course challenges high school students to analyze the advanced concepts of health, fitness, wellness, as well as the foundations of anatomy and physiology. Students will expand on health topics learned in Contemporary Health by exploring complex body systems, clinical medical terminology, biomechanical analysis, sports nutrition, and exercise science. Students are introduced to these health concepts through direct instruction, interactive lessons, discussion posts, creative projects, and a variety of other assignment types. This course is designed to provide a rigorous base of core knowledge and skills essential for students interested in a health science-related career.

Required Career Courses

DIGITAL CITIZENSHIP AND CAREER EXPLORATION

.25 CREDIT

Required for all 9th-grade Students

Prerequisite: NONE

In this 1-quarter **pass/fail** course, students delve into online learning, learning how to work independently, stay safe, and develop effective study habits in virtual learning environments under the direction of a Career Educator. This course prepares students for high school by providing in-depth instruction and practice in essential study skills such as time management, effective note-taking, test preparation, and online collaboration. By the end of the course, students understand what it takes to be successful online learners and responsible digital citizens.

REACHING YOUR ACADEMIC POTENTIAL

.25 CREDIT

Required for all 10th-grade Students

In this 1-quarter **pass/fail** course, students learn essential academic skills within their learning style, unique learning environment, and long-term goals under the direction of a Career Educator. This course helps students develop habits for more successful reading, writing, studying, communication, collaboration, time management, and concentration. It also provides insights into how the brain works when learning and how to maximize its potential. Artifacts/assessments generated by course content are requirements of the Department of Education's Career, Education, and Work Standards.

COLLEGE AND CAREER GOALS

.25 CREDIT

Required for all 11th-grade Students

In this 1-quarter **pass/fail** course, students explore their options for life after high school and implement plans to achieve their goals under the direction of a Career Educator. They identify their aptitudes, skills, and preferences and explore potential careers. They investigate the training and education required for the career of their choice and create a plan to be sure that their work in high school is preparing them for the next step. They also receive practical experience in essential skills such as searching and applying for college, securing financial aid, writing a resume and cover letter, and interviewing for a job. Artifacts/assessments generated by course content are requirements of the Department of Education's Career, Education, and Work Standards.

CAPSTONE GRADUATION PROJECT

.5 CREDIT

Required for all 12th-grade students

In this yearlong course, students apply classroom lessons in real-world settings through completing a Graduation Project. Under the supervision of a Career Educator, the Graduation Project is student-driven and based on the student's career and academic interests. Students learn and utilize the skills of planning, conducting research, developing a research paper, and presenting their graduation project to a staff panel. The course addresses elements of the state's ACT 158 requirements for graduation.

Elective Courses

ASTRONOMY: EXPLORING THE UNIVERSE

.5 CREDIT

Prerequisite: NONE

This semester-long course introduces students to astronomy, including its history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods astronomers use to learn more about the universe. Additional topics include the origin of the universe, the Milky Way, and other galaxies and stars.

AUDIO & VIDEO PRODUCTION

.5 CREDIT

Prerequisite: NONE

This semester-long, hands-on digital media course introduces students to the creative and technical world of audio and video production. Through weekly, project-based learning, students will develop essential skills in scriptwriting, framing, lighting, voice recording, video editing, and storytelling. Whether working behind the camera or in front of the mic, students will explore the tools and techniques used by filmmakers, podcasters, and digital storytellers. This course is ideal for aspiring content creators, filmmakers, podcasters, and digital artists ready to bring their ideas to life.

CIVICS & GOVERNMENT *

.5 CREDIT

Prerequisite: NONE

This semester-long course gives students a practical understanding of government principles and procedures, beginning with the origins and founding ideals of American government. Students examine the Constitution, its amendments, and the evolution of civil rights and liberties, including key Supreme Court decisions that highlight the significance of constitutional rights. The course then explores how government functions today and the role of citizens in civic life, culminating in an analysis of public policy and how individuals and organizations can influence change. Students work with primary and secondary sources and develop writing skills through short responses and full-length informative and argumentative essays.

CHILD DEVELOPMENT

.5 CREDIT

Prerequisite: NONE

This semester-long course invites students to use curiosity to explore the fundamentals of childcare, like nutrition and safety, and the complex relationships caregivers have with parents and their children. They examine the various life stages of child development and the best educational practices to enrich children's minds while thinking about possible career paths. There is a focus on children's physical, social, emotional, and cognitive growth and development and helping students acquire knowledge and skills essential to the care and guidance of children.

COMPUTER APPLICATIONS: OFFICE 2016

1 CREDIT

Prerequisite: NONE

This yearlong course introduces students to the features and functionality of the world's most widely used productivity software: Microsoft® Office®. Through video instruction, interactive skill demonstrations, and numerous hands-on practice assignments, students learn to develop, edit, and share Office 2016 documents for personal and professional use. By the end of this course, students will have developed basic proficiency in the most common tools and features of the Microsoft Office suite of applications: Word®, Excel®, PowerPoint®, and Outlook®.

CREATIVE WRITING *

.5 CREDIT

Prerequisite: NONE

This semester-long course provides students with a solid grounding in writing and its process, from finding inspiration to building a basic story to using complicated literary techniques and creating strange hybrid forms of poetic prose and prose poetry. By the end of this course, students will learn how to discover their creative thoughts and turn those ideas into fully realized pieces of creative writing.

CULINARY ARTS 1

.5 CREDIT

Prerequisite: NONE

This semester-long course is for students considering a career in the food service industry or looking to develop culinary skills. Students explore basic cooking and knife skills while preparing to enter the culinary world. Students discover the history of food culture, food service, and global cuisines while learning about food science principles and preservation. Students prepare for the future by building professional, communication, leadership, and teamwork skills essential for a culinary arts career and independent living.

DRAWING & DESIGN

.5 CREDIT

Prerequisite: NONE

This semester-long introductory art course invites students to learn about basic design, observation and perspective, form and tone, and composition. Students create actual art pieces that demonstrate mastery of these skills.

FORENSIC SCIENCE I: SECRETS OF THE DEAD

.5 CREDIT

Prerequisite: Biology

This semester-long course introduces students to fingerprints, blood spatter, DNA analysis, and more. The world of law enforcement increasingly uses techniques and knowledge from the sciences to understand crimes better and to catch the individuals responsible for the crimes. Forensic science applies scientific knowledge to the criminal justice system. This course focuses on techniques and practices used by forensic scientists during a crime scene investigation (CSI). The student follows evidence trails until the CSI goes to trial, examining how various crime scene elements are analyzed and processed, starting with how clues and data are recorded and preserved.

INTRODUCTION TO CODING

.5 CREDIT

Prerequisite: NONE

This semester-long course introduces programming principles, including algorithms and logic. Students engage in hands-on programming tasks in Python as they write and test their code using real programmers' approaches in the field. Students program with variables, functions/arguments, and lists/loops, providing a solid foundation for more advanced study and practical skills they can use immediately.

INTRODUCTION TO FAMILY & CONSUMER SCIENCE

.5 CREDIT

Prerequisite: NONE

This semester-long course prepares students with various independence and family living skills. Topics include child care, home maintenance, food preparation, money management, medical management, clothing care, and more. They also focus on household, personal, and consumer health and safety. In addition, students learn goal-setting and decision-making skills and explore possible career options. The course supports the development of knowledge and skills that students need as family members, now and in the future.

KEYSTONE ALGEBRA I PREP

.5 CREDIT

Prerequisite: Algebra I, Benchmarking Results, and Administrative Approval

This semester-long, **pass/fail** course is a preparatory course for taking the Algebra Keystone Exam. It provides students with ongoing Math support and increases their understanding of topics and concepts within the course. Instructors review concepts and skills taught in Algebra 1 while providing time for practice, modeling, and practical application of skills. Students who previously took Algebra 1 take this prep course based on prior academic achievement, as demonstrated by course grades and diagnostic/benchmarking results. The course focuses on PA-tested eligible content, using various resources, including the Standards Aligned System and Keystone-released Items by the PA Department of Education.

KEYSTONE BIOLOGY PREP

.5 CREDIT

*Prerequisite:
Biology, Benchmarking Results, and Administrative Approval*

This semester-long, **pass/fail** course is a preparatory course for taking the Biology Keystone Exam. It provides students with ongoing Biology support and increases their understanding of topics and concepts within the course. Instructors review concepts and skills taught in Biology while providing time for practice, modeling, and practical application of skills. Students who previously took Biology take this prep course based on prior academic achievement, as demonstrated by course grades and diagnostic/benchmarking results. The course focuses on PA-tested eligible content, using various resources, including the Standards Aligned System and Keystone-released Items by the PA Department of Education.

KEYSTONE LITERATURE PREP

.5 CREDIT

*Prerequisite:
English Language Arts 10, Benchmarking Results, and Administrative Approval*

This semester-long, **pass/fail** course is a preparatory course for taking the Literature Keystone Exam. It provides students with ongoing Literature support and increases their understanding of topics and concepts within the course. Instructors review concepts and skills taught in English Language Arts (ELA 10) while providing time for practice, modeling, and practical application of skills. Students who previously took ELA 10 take this prep course based on prior academic achievement, as demonstrated by course grades and diagnostic/benchmarking results. The course focuses on PA-tested eligible content, using various resources, including the Standards Aligned System and Keystone-released Items by the PA Department of Education.

PERSONAL FINANCE

0.5 CREDIT

Prerequisite: NONE

This semester-long course teaches what it takes to understand the world of finance and make informed decisions about managing finances. Students learn more about economics and become more confident in setting and researching financial goals as they develop the core skills needed to be successful. Students learn to open bank accounts, invest money, apply for loans, apply for insurance, explore careers, manage business finances, make decisions about major purchases, and more. Stories from finance professionals and individuals who have reached their financial goals aim to inspire students.

PSYCHOLOGY**1 CREDIT***Prerequisite: NONE*

This yearlong course introduces high school students to psychology and helps them master fundamental concepts in research, theory, and human behavior. Students analyze human growth, learning, personality, and behavior from the perspective of major theories within psychology, including the biological, psychosocial, and cognitive perspectives. From a psychological point of view, students investigate the nature of being human as they build a comprehensive understanding of traditional psychological concepts and contemporary perspectives in the field. Course components include an introduction to the history, perspectives, and research of psychology; an understanding of topics such as the biological aspects of psychology, learning, and cognitive development; the stages of human development; aspects of personality and intelligence; the classification and treatment of psychological disorders; and psychological aspects of social interactions.

PRINCIPLES OF BUSINESS, MARKETING, AND FINANCE**.5 CREDIT***Prerequisite: NONE*

This semester-long course hits on "real-life" topics for students in general business, marketing, and financial concepts. This course prepares students for life after high school and covers various topics including, but not limited to, money management, taxes, sales, visual merchandising, the marketing process, and more.

PRINCIPLES OF INFORMATION TECHNOLOGY**.5 CREDIT***Prerequisite: NONE*

This semester-long course introduces students to essential technical and professional skills required in Information Technology (IT). Through hands-on projects and written assignments, students understand the operation of computers, computer networks, Internet fundamentals, programming, and computer support. Students also learn about the social impact of technological change and the ethical issues related to technology. Throughout the course, instructional activities emphasize safety, professionalism, accountability, and efficiency for workers within the field of IT.

SPORTS & ENTERTAINMENT MARKETING**.5 CREDIT***Prerequisite: NONE*

This semester-long course dives into basic marketing concepts, target markets, market segmentation, sports marketing, supply and demand, entrepreneurship, and more. This class is for students who want to know the why and how behind sports and entertainment branding and foundational marketing concepts.

VETERINARY SCIENCE: THE CARE OF ANIMALS**.5 CREDIT***Prerequisite: NONE*

This semester-long course explores animals' roles in our lives and how scientists have sought to learn more about their health and well-being. Students examine domestic, farming, zoo, and wildlife sanctuary animals and their common diseases and treatments. Toxins, parasites, and infectious diseases impact not only animals but humans as well. Students learn that through veterinary medicine and science, the prevention and treatment of diseases and health issues are studied and applied.

Introduction to Career Pathways

At PA Virtual, we believe in career-connected learning: helping students align their coursework with future goals in college, careers, and beyond. Our high school courses, electives, and extracurricular opportunities are organized under 6 broad career clusters with 16 specific career pathways. This structure allows students to consider scheduling courses that match their interests while gaining valuable skills that can lead to college opportunities and career pathways.

Within each career pathway, students can find courses to satisfy subject credits beyond the core courses, such as specialized electives and extracurricular activities that align with those industries. While students are not required to choose a specific career path in high school, this chart can help guide them toward courses that will prepare them for success in their desired fields.

Below, you'll find a breakdown of career clusters, relevant course offerings, and extracurricular opportunities at PA Virtual. Students should use this as a guide to explore areas of interest and make informed choices about high school coursework and clubs.

****Please note that extracurricular options reflect those available in 2025-2026 and are subject to change in 2026-2027.****

STEM & Technical Fields	● Science, Technology, Engineering, & Mathematics (STEM) - Environmental Science (Suggested Grade: 11-12) - Chemistry (Prerequisite: Biology, Suggested Grade: 11-12) - Physical Science (Prerequisite: Biology, Suggested Grade: 10-12) - Astronomy (Suggested Grade: 11-12) - Anatomy and Physiology (Prerequisite: Biology and Algebra IB, 80% or higher) - Physics (Prerequisite: Chemistry or Pre-Calculus, Suggested Grade: 11-12) - Advanced Placement Biology (Prerequisite: Biology 90%+, Suggested Grade: 11-12) - Advanced Placement Environmental Science (Prerequisite: Chemistry 90%+, Suggested Grade: 11-12) - Geometry (Prerequisite: Algebra IB, Suggested Grade: 11-12) - Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12) - Pre-Calculus (Prerequisite: Algebra II, Suggested Grade: 11-12) - Statistics and Probability (Prerequisite: Geometry, Suggested Grade: 11-12) - Advanced Placement Calculus AB (Prerequisite: Pre-Calculus 90%+, Suggested Grade: 11-12) - Advanced Placement Statistics (Prerequisite: Algebra II 90%+, Suggested Grade: 11-12) - Extracurricular Options: GLOBE Science Club, Fossil and Crystal Club, Animal Club
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STEM & Technical Fields, cont.

● Information Technology

- Introduction to Coding (Suggested Grade: 11-12)
- Principles of Information Technology (Suggested Grade: 11-12)
- Computer Applications: Office 2016 (Suggested Grade: 11-12)
- Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12)
- Pre-Calculus (Prerequisite: Algebra II, Suggested Grade: 11-12)
- Statistics and Probability (Prerequisite: Geometry, Suggested Grade: 11-12)

● Manufacturing

- Geometry (Prerequisite: Algebra IB, Suggested Grade: 11-12)
- Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12)
- Pre-Calculus (Prerequisite: Algebra II, Suggested Grade: 11-12)
- Physical Science (Prerequisite: Biology, Suggested Grade: 10-12)
- Physics (Prerequisite: Chemistry or Pre-Calculus, Suggested Grade: 11-12)

● Transportation, Distribution, & Logistics

- Geometry (Prerequisite: Algebra 1, Suggested Grade: 11-12)
- Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12)
- Pre-Calculus (Prerequisite: Algebra II, Suggested Grade: 11-12)

- **Extracurricular Options:** PA Virtual Car Club

Business & Finance

● Business Management & Administration

- Principles of Business, Marketing, and Finance (Suggested Grade: 11-12)
- Accounting 1 (Suggested Grade: 11-12)
- Financial Math (Suggested Grade: 11-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)

- **Extracurricular Options:** Future Business Leaders of America Club (**Application process for those who qualify**)

● Marketing

- Sports & Entertainment Marketing (Suggested Grade: 11-12)
- Statistics and Probability (Prerequisite: Geometry, Suggested Grade: 11-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)

● Finance

- Personal Finance (Suggested Grade: 11-12)
- Financial Math (Suggested Grade: 11-12)
- Accounting 1 (Suggested Grade: 11-12)
- Economics (Suggested Grade: 11-12)
- Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12)
- Pre-Calculus (Prerequisite: Algebra II, Suggested Grade: 11-12)
- Statistics and Probability (Prerequisite: Geometry, Suggested Grade: 11-12)

Health & Human Services

● Health Science

- Advanced Health (Prerequisite: Contemporary Health 80%+, Suggested Grade: 11-12)
- Forensic Science (Prerequisite: Biology, Suggested Grade: 11-12)
- Veterinary Science (Prerequisite: Biology, Suggested Grade: 11-12)
- Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12)
- Statistics and Probability (Prerequisite: Geometry, Suggested Grade: 11-12)
- Physics (Prerequisite: Chemistry or Pre-Calculus, Suggested Grade: 11-12)
- Chemistry (Prerequisite: Biology, Suggested Grade: 11-12)
- Anatomy and Physiology (Prerequisite: Biology and Algebra IB, 80% or higher)
- Advanced Placement Biology (Prerequisite: Biology 90%+, Suggested Grade: 11-12)
- Advanced Placement Environmental Science (Prerequisite: Chemistry 90%+, Suggested Grade: 11-12)

- **Extracurricular Options:** HS Health and Fitness Club, Peace of Mind: Mental Health Awareness Club

● Human Services

- Introduction to Family & Consumer Science (Suggested Grade: 11-12)
- Psychology (Suggested Grade: 11-12)
- Child Development (Suggested Grade: 10-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)

- **Extracurricular Options:** Interact Club, Peace of Mind: Mental Health Awareness Club, GSA Club, Young Muslims Club, BLAST Bible Club

● Hospitality & Tourism

- Culinary Arts 1 (Suggested Grade: 10-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)

Agriculture & Environmental Sciences

● Agriculture, Food & Natural Resources

- Earth and Space Science (Suggested Grade: 9-12)
- Environmental Science (Suggested Grade: 11-12)
- Chemistry (Prerequisite: Biology, Algebra 1B, Suggested Grade: 11-12)
- AP Environmental Science (Prerequisites: Chemistry Honors, Suggested Grade: 11-12)

- **Extracurricular Options:** GLOBE Science Club

Public Service & Law

- **Government & Public Administration**

- Civics & Government (Suggested Grade: 11-12)
- Economics (Suggested Grade: 11-12)
- World History (Prerequisite: US History 90% or higher)
- Geography (Suggested Grade: 9-12)
- Advanced Placement US History (Prerequisite: US History 90%+)
- Statistics and Probability (Prerequisite: Geometry, Suggested Grade: 11-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)
- Civics and Government (Suggested Grade: 10-12)
- **Extracurricular Options:** Law and Trial Club, Debate Club, Student Council

- **Law, Public Safety, Corrections & Security**

- Forensic Science (Prerequisite: Biology, Suggested Grade: 11-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)
- Civics and Government (Suggested Grade: 10-12)
- **Extracurricular Options:** Law and Trial Club, Debate Club, Student Council

- **Education & Training**

- Child Development (Suggested Grade: 10-12)
- Introduction to Family & Consumer Science (Suggested Grade: 11-12)
- Psychology (Suggested Grade: 11-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)
- **Extracurricular Options:** Peer Leadership Club, Interact Club, Fast and Curious Trivia Club, SAT/ACT Prep Club
- *Temple University Dual Enrollment Program (Application process for those who qualify)*

Creative & Communications Fields

- **Arts, A/V Technology & Communications**

- Creative Writing (Suggested Grade: 10-12)
- Drawing & Design (Suggested Grade: 10-12)
- Music Appreciation (Suggested Grade: 9-12)
- Music Appreciation for Musicians (Suggested Grade: 9-12)
- Art History (Suggested Grade: 10-12)
- Careers in Art & Design (Suggested Grade: 9-12)
- Audio & Video Production (Suggested Grade: 9-12)
- Geometry (Prerequisite: Algebra 1, Suggested Grade: 11-12)
- Introduction to Communications and Speech (Prerequisite: ELA 12 concurrently)
- Advanced Placement English Language & Composition (Prerequisite: ELA 10 90%+, Suggested Grade: 11-12)
- Advanced Placement English Literature & Composition (Prerequisite: ELA 11 90%+, Suggested Grade: 12)
- **Extracurricular Options:** Book Club, Journaling & Productivity Club, School Newspaper Club, Fashion and Sewing Club, Writers' Nook Club, Virtual Voices Club, Digital Art Club, Photography Club, Role Play Writers Club, Acting Club, Wholesome Gamer Club, Dungeons and Dragons Club

- **Architecture & Construction**

- Art History (Suggested Grade: 10-12)
- Drawing & Design (Suggested Grade: 10-12)
- Geometry (Prerequisite: Algebra 1, Suggested Grade: 10-12)
- Algebra II (Prerequisite: Geometry, Suggested Grade: 11-12)
- Pre-Calculus (Prerequisite: Algebra II, Suggested Grade: 11-12)
- Physics (Prerequisite: Depends on Course Level, Suggested Grade: 11-12)

Course Schedule Examples

9th-Grade Course Schedule Examples

Course Subjects	ELA	Math	Science	Social Studies	Electives	Required	Humanities (Choose One)
Example Schedule 1	English 9	Algebra 1A	Earth and Space Science	Geography		Lifetime Fitness 1 Digital Citizenship & Career Exploration	Fine Art (Music, Art History) OR World Language Level 1 (Spanish, French, or German)
Example Schedule 2	English 9	Algebra 1B **	Earth and Space Science Honors Earth and Space ** (choose 1)	Geography		Lifetime Fitness 1 Digital Citizenship & Career Exploration	Fine Art (Music, Art History) OR World Language Level 1 (Spanish, French or German)
Example Schedule 3	English 9 Honors English 9 ** (choose 1)	Algebra 1B ** Honors Algebra 1 ** Geometry ** Honors Geometry ** (choose 1)	Honors Earth and Space ** Honors Biology ** (choose 1)	Honors Geography **		Lifetime Fitness 1 Digital Citizenship & Career Exploration	Fine Art (Music, Art History) OR World Language Level 1 (Spanish, French or German)

** Students must meet prerequisite requirements for all core courses (refer to the course catalog)

10th-Grade Course Schedule Examples

Course Subjects	ELA	Math	Science	Social Studies	Electives	Required	Humanities (Choose One)
Example Schedule 1	English 10	Algebra 1B	Environmental Science *	US History	Keystone Algebra 1 * Literacy Skills*	Lifetime Fitness 2 Reaching Your Academic Potential	Fine Art (Music, Art History) OR World Language Level 1 or Level 2 ** (Spanish, French, or German)
Example Schedule 2	English 10	Geometry **	Biology Honors Biology ** (choose 1)	US History	Literacy Skills * Healthy Living OR Contemporary Health	Lifetime Fitness 2 Reaching Your Academic Potential	Fine Art (Music, Art History) OR World Language Level 1 or Level 2 ** (Spanish, French, or German)
Example Schedule 3	English 10 Honors English 10 ** (choose 1)	Geometry ** Honors Geometry ** Algebra 2 ** Honors Algebra 2 ** (choose 1)	Honors Biology ** Chemistry ** Honors Chemistry ** (choose 1)	Honors US History **	Healthy Living OR Contemporary Health	Lifetime Fitness 2 Reaching Your Academic Potential	Fine Art (Music, Art History) OR World Language Level 1 or Level 2 ** (Spanish, French, or German)

* Course scheduled based on the benchmarking results or prior course achievement

** Students must meet prerequisite requirements for all core courses (refer to the course catalog)

11th-Grade Course Schedule Examples

Course Subjects	ELA	Math	Science	Social Studies	Electives	Required	Humanities (Choose one if Needed)
Example Schedule 1	English 11	Geometry	Biology	World History	Keystone English *	Lifetime Fitness 3 College & Career Goals	Fine Art (Music, Art History) OR World Language Level 1, 2, or 3 ** (Spanish, French, or German)
Example Schedule 2	English 11	Algebra 2 Statistics & Probability (choose 1)	Physical Science Chemistry (choose 1)	World History	Keystone English * Keystone Biology * Healthy Living OR Contemporary Health	Lifetime Fitness 3 College & Career Goals	Fine Art (Music, Art History) OR World Language Level 1, 2, or 3 ** (Spanish, French, or German)
Example Schedule 3	English 11 Honors English 11 ** AP English Language & Comp ** (choose 1)	Algebra 2 Honors Algebra 2 ** Statistics & Probability ** PreCalculus ** Honors PreCalculus ** (choose 1)	Honors Chemistry ** Physics ** Honors Physics ** (choose 1)	Honors World History **		Lifetime Fitness 3 College & Career Goals	Fine Art (Music, Art History) OR World Language Level 1, 2, or 3 ** (Spanish, French, or German)

* Course scheduled based on benchmarking results or prior course achievement

** Students must meet prerequisite requirements for all core courses (refer to the course catalog)

12th-Grade Course Schedule Examples

Course Subjects	ELA	Math	Science	Social Studies	Electives	Required	Humanities (Choose one if Needed)
Example Schedule 1	English 12	Financial Math			see below ***	Lifetime Fitness 4 Capstone Graduation Project	Fine Art (Music, Art History) OR World Language Level 1, 2, or 3 ** (Spanish, French, or German)
Example Schedule 2	English 12	Statistics & Probability PreCalculus	Chemistry Physics (choose 1)	Psychology	see below ***	Lifetime Fitness 4 Capstone Graduation Project	Fine Art (Music, Art History) OR World Language Level 1, 2, or 3 ** (Spanish, French, or German)
Example Schedule 3	English 12 Honors English 12 ** AP English Language & Comp ** AP English Literature & Comp ** Introduction to Communication & Speech (choose 1)	PreCalculus Honors PreCalculus ** AP Calculus ** AP Statistics ** (choose 1)	Physics ** Honors Physics ** AP Environmental Science ** AP Biology ** (choose 1)	AP US History **	see below ***	Lifetime Fitness 4 Capstone Graduation Project	Fine Art (Music, Art History) OR World Language Level 1, 2, or 3 ** (Spanish, French, or German)

** Students must meet prerequisite requirements for all core courses (refer to the course catalog)

*** Seniors must have a minimum of 5 credits in their schedule and meet all graduation requirements (refer to course catalog)