

Highlands High School



2023-2024 Program of Studies

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How to use this document

The intent of this document is to ensure that all families have the necessary information to make informed course selections for the upcoming school year. We encourage families to spend time reading through this document together and discussing student course selections for the 2023-2024 school year.

When making course selections, students should consider their goals for future education and the career path they plan to pursue. Using the Graduation Planning Template provided below will ensure that all graduation requirements are met prior to the student's anticipated graduation date. The High School master schedule is driven by student course selections. The number of sections of each course available, or if a course will run, is determined by the number of students enrolling in a course during the scheduling process. As such, we encourage students and families to engage in conversation to select their courses for next school year. Once courses are scheduled, the master schedule does not allow for changes.

Teacher recommendations will be available in Power-School on Friday, February 3, 2023. Teachers will use student performance data to recommend the appropriate courses for students. While students may be recommended for numerous Honors/AP/CHS level courses, we strongly encourage students to take into consideration their extracurricular and personal schedules as well as their willingness to spend time outside of school, working on assignments.

Should you have any questions during this process, please reach out to the school counseling department for guidance. We hope that this process ensures that all students are placed in classes that prepare them for their future endeavors.

Note: Each section heading in the table of contents is a link to that specific section. If you want to jump directly to a department's course offering, simply click on the name of the department in the Table of Contents.

High School Staff

Building Administration

Dr. Laura Burns	Principal	ext. 4610
Dr. Nicholas LaMantia	Assistant Principal	ext. 4605
Jefrie Funtal	Dean of Students	ext. 4615
Brittany Barch	Office Secretary	ext. 4601
Patty Sirota	Office Secretary (Attendance)	ext. 4600
Drew Karpen	Athletic Director/Director of Transportation	ext. 5670
Carmen Corna	District Attendance Officer	ext. 3007

School Counseling Department

Beth Carrarini	School Counselor J-Sj	ext. 4651
Susie Gurrera	School Counselor A-I	ext. 4653
Marilyn Skwortz	School Counselor Sk-Z	ext. 4652
Kim Hines	School Counseling Secretary	ext. 4650

2023-2024 Scheduling Timeline

The following timeline will be followed in regard to student course selections and the distribution of student schedules for the 2023-2024 school year:

Date	Scheduling Event
March 21, 2023	Introduce the Scheduling Process during an extended homeroom
March 23, 2023 @ 7:00 PM	Parent Scheduling Informational Meeting
March 27, 2023	Student Course Selections Due
March 28 - March 31, 2023	Counselor Verification Meetings
April 12, 2023	Parent Course Verification Sign-off Sent Home
April 17, 2022	Parent Course Verification Sign-off Due
June 7, 2022	Student Schedules Distributed/Step-up Day
June 15, 2022	Course Add/Drop Period Ends

Course Add/Drop Process

The deadline to request a schedule change is Wednesday, June 14. The required Google form, found on the [district website](#) and School Counselor's Google Classrooms, must be submitted no later than June 14, 2023

Requests to change schedules beyond June 14, 2023 must be approved by the teacher and principal. Requests to change schedules beyond the first 10 days of a year-long course and beyond the first 5 days of a semester course will result in a grade of WF (withdraw failing) which will be recorded on the student's transcript.

NOTE: Requests to change schedules, at any time, may be denied based on availability and class size.

Graduation Requirements

To be eligible for graduation, students must earn 24 credits. The table below shows the required distribution of credits for graduation.

Subject Area	Required Number of Credits
English	4
Mathematics	3
Science	3
Social Studies	3
Health and Physical Education	2
Humanities	2
Electives	7

Graduation Planning Template

Below is a template to help students plan their course selections and ensure that they are meeting all graduation requirements by the end of their senior year. School Counselors will meet with students each year to discuss future plans and to update a copy of this form to track all graduation requirements.

Subject	Credits Required	Grade	Courses	Year	Credit Earned
English	4	9			
		10			
		11			
		12			
Mathematics	3	9			
		10			
		11			
		12			
Science	3	9			
		10			
		11			
		12			
Social Studies	3	9			
		10			
		11			
		12			
Health and Physical Education	2	9			
		10			
		11			
		12			
Humanities	2				
Electives	7				
Keystone Exam Verification	NA		Algebra I		
			Literature		
			Biology		

Keystone and Act 158 Requirements

The Pennsylvania Department of Education requires that all students participate in Keystone Exams in Algebra, Biology and Literature as part of graduation requirements. Each exam is aligned with a trigger course. During the month of May in the year a student is enrolled in the trigger course, Highlands High School administers the Keystone Exam. These courses are noted in the course descriptions below. Students must earn a score of 1500 or above on each assessment in order to achieve a proficient score. Students may retake the exams as many times as necessary, prior to their senior year, in order to achieve proficiency.

Beginning with the Class of 2023, Act 158 of 2018 (Act 158) provides alternative pathways to graduation for students who do not achieve proficiency on all three Keystone Exams. Students have the opportunity to demonstrate postsecondary preparedness through one of four additional pathways:

1. Keystone Composite
2. Career and Technical Education (CTE) Concentrator
3. Alternative Assessment
4. Evidence Based

School counselors will continue to monitor student achievement on Keystone Exams and work with families to identify the best pathway for students during their annual counselor meeting. For additional information, and a detailed explanation of each pathway, please visit the [district](#) or [SAS](#) websites.

Keystone Intervention and Preparation Courses

To ensure that all students receive the support necessary to score proficient on the Keystone Exams and meet the graduation pathway requirements of Act 158, Highlands High School provides Keystone Intervention and Preparation courses. Student enrollment in these courses is based on student demonstrated need. The description of each is listed below.

KEYSTONE INTERVENTION (0.5 credits/Fall Semester)

The Keystone Intervention course is designed for students who did not achieved proficiency on their first attempt at a Keystone assessment. Students will be enrolled in a semester course that utilizes assessment data to create an individualized intervention plan to for each student. Students will retake the associated Keystone exam at the end of the course, during the winter testing window.

KEYSTONE PREPARATION (0.5 credits/Spring Semester)

The Keystone Preparation course is offered in the spring of each year for students that are currently enrolled in Keystone trigger courses. These courses utilize student data to identify students in need of targeted remediation to help them prepare for success on the associated Keystone exam administered in the spring.

Community Service Requirement

All students must complete community service hours in order to graduate. Over the next three years, the required community service hours will increase one hour a year as follows:

- 2023-2024 – 3 hours
- 2024-2025 – 4 hours
- 2025-2026 – 5 hours

Students must complete the community service verification form, available in the school counseling office, and return it to their school counselor, as service hours are completed.

Grade Promotion

Promotion to the next grade is based solely on credits earned each school year. Students can earn 8 credits per year. Students must earn the following credits for promotion:

Grade Level	Minimum Credits Earned
10 th Grade	5
11 th Grade	11
12 th Grade	17
Graduation	24

Grading System

Percentage grades are used for each nine-week grading period as well as semester and final averages. The percentage grade that the student earns in class is what will appear on the report card. The percentage grade earned in all classes will be calculated into a student's grade point average. The current percentage scale (90, 80, 70, 60) will be used.

GPA Calculations

The computation of a student's grade point average for a course is the product of the grade earned, the credit value, and the multiplier. Courses taught at the Advanced Placement (AP) or College in High School (CHS) levels have a multiplier of 1.10. Honors courses have a multiplier of 1.05. Each quarter grade contributes 22.5% of the final grade and the final exam contributes 10% of the final grade. The weighted average of these five values is the percentage recorded on the student's official transcript.

Work Release

Work release allows students in good standing towards credit accumulation to abbreviate their school day in order to pursue employment opportunities. Limited to seniors, students who apply for a release time/co-op program must provide copies of pay-stubs twice a month and be a student in good standing who is on-track for graduation. Interested rising-seniors should notify their school counselor during their course verification meeting. Over the summer, students will receive required paperwork that verifies employment; this paperwork must be returned prior to the student being released from school. All work release will be scheduled at the end of the academic day.

Global Scholars Program

The Global Scholars Program is an interdisciplinary program that helps cultivate globally minded students who, upon graduation, will be better prepared to negotiate our increasingly international society. This program develops students' global competence and broadens their post-secondary opportunities, including university acceptance and scholarships, as well as career and workforce options. The Global Scholars Program is sponsored by the Pennsylvania State Modern Language Association ([PSMLA](#)) in collaboration with the World Language Department at Highlands High School.

Students must meet all of the graduation requirements as mandated by Highlands School District. In addition, students who wish to receive the Global Scholars Certificate upon graduation and wear the Global Scholars honor cords during the graduation ceremony, must also satisfy the following requirements within the course of their high school career:

1. 8 Global academic courses (including 4 consecutive years of the same language)
2. 4 Global extracurricular activities
3. 20 Global service hours
4. 8 Global literature or media reviews

For more information, visit the [website](#) or contact the Global Scholars Program Advisor Laura Fleischer Proano at lproano@goldenrams.com.

Highlands Virtual Academy (HVA)

Students may choose to enroll in the Highlands Virtual Academy (HVA) to earn credits toward graduation. This program utilizes the Edgenuity Platform to present course content to students. The program provides students the flexibility to earn Highlands credits while working from home. Enrollment in this program is a privilege for students, and students failing to meet program requirements may be directed to return to in-person learning at the discretion of building administration. Please note not all courses offered in the program of studies are available to students enrolling in the HVA program.

To register for HVA, students must notify their school counselor and participate in an orientation, along with a parent/guardian. Students enrolled in HVA may also attend Forbes Road Career and Technology Center. Full-time and part-time HVA students are responsible for meeting all of Highlands School District graduation requirements to earn a diploma.

Xello College and Career Preparation Program

This online tool provides students a platform to explore post-secondary opportunities. In alignment with the Highlands School District 339 Plan, students use Xello each year to complete activities that explore post-secondary career and/or educational options. The goal of this program is to provide students with resources to help them plan their path after high school. Xello is also used during the college application process to store teacher/staff recommendation letters. All students at HHS have access to this program.

Additional Program Information

ADVANCED PLACEMENT: AP courses require college level thinking and learning. Colleges may grant credit based on scores on advanced placement tests administered in May. Please consult individual colleges/universities for their AP procedures. Students enrolled in Advanced Placement courses have the option take the AP exams for those subject areas. Highlands High School strongly recommends participating in the AP exams. Students who take the AP exams must do so at their own expense. Students who meet income requirements may be eligible for an exam fee waiver.

COLLEGE IN HIGH SCHOOL (CHS) COURSES: College in High School courses align to course curriculum from local universities including the University of Pittsburgh, Robert Morris University and Seton Hill University. When enrolled in a CHS course, students may earn college credit through the associated university. Fees differ by university and are the student's responsibility. Students should contact the associated university when transferring these credits to their selected post-secondary institution.

GIFTED AND TALENTED EDUCATION PROGRAM (GATE): The Highlands School District provides opportunities that promote the growth of skills and knowledge necessary for identified gifted students to achieve their potential and to fulfill their future roles in our ever-changing global society. Highlands recognizes the unique abilities, talents, interests and needs of intellectually gifted students, which require specially designed instruction and programming, and provides enrichment opportunities in math, ELA and other areas to help students in the GATE program continue to develop their advanced skills.

NATIONAL HONOR SOCIETY: The National Honor Society (NHS) is the nation's premier organization established to recognize outstanding high school students. NHS serves to recognize those students who have demonstrated excellence in the areas of scholarship, service, leadership, and character. Qualified students will be invited to apply for induction during their sophomore year. Students selected for membership will participate in an induction ceremony in May.

SPECIAL EDUCATION PROGRAM: It is the policy of the Highlands School District that every child who qualifies for special education services will receive a free, appropriate, public education (FAPE). To the maximum extent possible, children with disabilities will be educated in the least restrictive environment. Student Placement decisions are made via the IEP team that includes the parents.

SCHOOL COUNSELING PROGRAM: The school counseling department provides numerous services for students and families. Based on the standards set forth by the American School Counselor Association's model and the Pennsylvania Career Standards, the school counselors provide services to all students under the domains of personal/social, academic, and career. Classroom, small group, and individual interventions are the venue through which all students have the opportunities to grow in each domain.

STUDENT ASSISTANCE PROGRAM (SAP): SAP is a formal, comprehensive, and systematic approach to the early identification of students with learning barriers resulting from a variety of stressors. This program provides for both school supports, and when necessary, community resources to address barriers. SAP is an intervention, not a treatment program, which integrates a process of information gathering, intervention, and follow up through the SAP Team.

NOTE: THE ADMINISTRATION RESERVES THE RIGHT TO CANCEL ANY COURSE OFFERING OR TO ADJUST STUDENT SCHEDULES ON THE BASIS OF ENROLLMENT AND/OR TEACHER AVAILABILITY.

English Department Course Descriptions

ACADEMIC ENGLISH 9		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: English	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will focus on analysis of reading and analytical writing grounded in evidence from text. Ninth graders will analyze an author’s use of rhetoric to advance a point of view or purpose. Students will analyze how the author unfolds an analysis or series of ideas or arguments, including the order in which the points are made, how they are introduced and developed, as well as the connections made between them. Aligned to the PA SAS Modules, students will be exposed to various literary devices while exploring major texts. Students will increase vocabulary skills through various reading, writing, and speaking activities. This course will prepare students for post-secondary opportunities by providing opportunities for teamwork, collaboration, complex thinking skills as well as verbal and written communication used in various contexts.</p>		

HONORS ENGLISH 9		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: English	Duration: Full-Year
Prerequisites: An A in Honors English 8 or Academic English 8 with teacher recommendation and writing submission		
<p>Course Description: Students will focus on analysis of reading and writing supported by evidence from the text. Ninth graders will analyze an author’s use of rhetoric to advance a point of view or purpose. Students will analyze how an author creates and unfolds an analysis or series of ideas and arguments. Aligned to the PA SAS Modules, the curriculum teaches the skills of reading, writing, discussion, language use, and vocabulary development through the study of both literature and informational texts. Students are trained to be excellent critical thinkers, readers, textual analysts, writers, problem solvers, and creative producers of a compelling argument. The course will depend on high quality of work for a variety of varying audiences and purposes. Students will prove their command of the conventions through standard written language. This course will prepare students for post-secondary opportunities by providing opportunities for teamwork, collaboration, complex thinking skills, speaking activities, as well as verbal and written communication used in various contexts. Students will be expected to meet and exceed state standards for reading, writing, listening, and speaking.</p> <p>Note: A summer reading and writing assignment is required for this class.</p>		

ACADEMIC ENGLISH 10		Credit Value: 1.0
Grade Level: 10	Fulfills Graduation Requirement: English	Duration: Full-Year
Prerequisites: English 9/Honors English 9		
<p>Course Description: Students analyze various forms of literature, including fiction, non-fiction, and other mediums for theme, author’s purpose, point of view, text structure, and rhetoric while citing textual evidence. Students conduct research and create essays that include academic vocabulary, facts, details, quotations, and other information. Students engage in collaborative discussion on topics through reasoning, providing evidence, and evaluating other’s views as well as their own. Students read, write, speak, and listen to diverse perspectives, as guided by the PDE SAS Grade 10 modules. The course content prepares students for Academic English 11 and imbeds college and career readiness skills by providing opportunities for analytical and critical thinking, teamwork, collaboration, speaking, and writing for various contexts.</p>		
<p>Note: The Keystone Literature Exam will be administered at the conclusion of this course.</p>		

HONORS ENGLISH 10		Credit Value: 1.0
Grade Level: 10	Fulfills Graduation Requirement: English	Duration: Full-Year
Prerequisites: Grade of an “A” in Honors English 9 or a “B” with a recommendation from the Honors English 9 teacher. Grade of an “A” in Academic English 9 with recommendation from the Academic English 9 teacher and submission of writing samples.		
<p>Course Description: Students analyze nonfiction and fiction literature as well as other mediums for theme development, author’s assumptions and beliefs, perspective and its impact on meaning and text structure, and rhetoric while using textual evidence. Students conduct research and craft essays using academic vocabulary, sufficient facts, concrete details, quotations, and other information with an awareness of projected audience knowledge. Students make important connections and distinctions, using varied transitions to link major sections of the text and provide description and evidence in their writing to create a cohesive and coherent essay. Students initiate and engage in meaningful collaborative discussion on grade-level topics heightened by their ability to reason, provide evidence, and evaluate the views of others while exploring their own beliefs and assumptions. Students read, write, speak, and listen to diverse perspectives in this accelerated course, as guided by the PDE SAS Grade 10 modules. Students engage in summer reading assignments. The course content prepares students for Honors English 11 or AP English 11 and imbeds college and career readiness skills by providing opportunities for analytical and critical thinking, teamwork, collaboration, speaking, and writing for various contexts.</p>		
<p>Note: Summer reading and writing assignment are required for this class. The Keystone Literature Exam will be administered at the conclusion of this course.</p>		

ACADEMIC ENGLISH 11		Credit Value: 1.0
Grade Level: 11	Fulfills Graduation Requirement: English	Duration: Full-Year
Prerequisites: English 10		
<p>Course Description: This course emphasizes two areas: the survey of American Literature and the process of composition. The historical development of American Literature is traced from the Colonial to Contemporary Times, linking the development of American Literature to the philosophical and historical events occurring during various time periods. Students will approach this literature through novels, short stories, drama, poetry, essays and various analytical compositions. Completion of a research paper on American author and/or influential American will be required. Students will trace the development of the nation and the common issues our society faces. Students will have opportunities to explore ventures after high school and compare them to specific characters and themes. Additionally, students will engage with non-fiction text to explore events outside of school life and begin to form interests and opinions.</p>		

HONORS ENGLISH 11		Credit Value: 1.0
Grade Level: 11	Fulfills Graduation Requirement: English	Duration: Full-Year
<p>Prerequisites: Grade of an “A” in Honors English 10 or a “B” with a recommendation from the Honors English 10 teacher. Students not enrolled in Honors English 10 must receive an “A” in Academic English 10 and have a recommendation from the Academic English 10 teacher, along with submission of a writing sample.</p>		
<p>Course Description: This course focuses American Literature with emphasis placed upon reading comprehension, vocabulary in context, and development of compositional skills. In adherence to the PA ELA Core Standards, students will use text dependent analysis to determine what the text says explicitly and implicitly and cite specific evidence to support conclusions. Students will consider task, purpose, and audience while choosing words, information, structures, and format deliberately when writing. Students will take part in class discussions by expressing their own idea clearly and persuasively. Students will enhance career and workforce readiness skills by infusing PA Career Education and Workforce Standards into the core curriculum. This includes creating a resume, writing college essays, and improving interpersonal skills through group work and public speaking.</p>		
<p>Note: Summer reading and writing will be required.</p>		

AP ENGLISH LANGUAGE AND COMPOSITION		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: English	Duration: Full-Year
<p>Prerequisites: Grade of an “A” in Honors English 10 or a “B” with a recommendation from the Honors. English and submission of a writing sample. Students not enrolled in Honors English 10 must receive an “A” in Academic English 10 and have a recommendation from the Academic English 10 teacher, along with submission of a writing sample.</p>		
<p>Course Description: The AP English Language and Composition program aligned to the PA Core ELA Standards. Students will use text dependent analysis to determine what the text says explicitly and implicitly and cite specific evidence to support conclusions. Students will consider task, purpose, and audience while choosing words, information, structures, and format deliberately. Students will analyze voice, diction, detail, imagery, syntax, and tone to gain a deeper understanding of language and literature. Through reading and writing, students will become aware of the interaction between a writer’s purpose, audience expectations, and subjects, as well as the way conventions and rhetorical devices contribute to effective writing. Students will take part in a variety of productive, structured conversations - as part of a whole class, small groups, or with a partner - building on others’ ideas and expressing their own clearly and persuasively. This is an intensive writing course that will prepare college- bound students for freshman English and college composition courses. Additionally, advanced vocabulary study and mastery of rhetorical strategies and devices will be developed.</p> <p>Note: To participate in this course, successful completion of summer reading and writing assignments are required. The course will follow the AP College Board national syllabus. The reading list can be accessed at: http://www.collegeboard.com/student/testing/ap/sub_englang.html?englang</p> <p>This Course will run during the 2023-2024 school year and will not be offered for the 2024-2025 school year. It will run every other year, opposite AP English Literature and Composition.</p>		

ACADEMIC ENGLISH 12		Credit Value: 1.0
Grade Level: 12	Fulfills Graduation Requirement: English	Duration: Full-Year
<p>Prerequisites: English 11</p>		
<p>Course Description: Aligned to the PA Core ELA Standards, this course will analyze classic literature components from varying genres, time periods, and origins; and an emphasis will be dedicated to British literature, linking the development of British Literature to philosophical and historical events. The students will approach literature through a study of fiction, non-fiction, poetry, drama, various analytical compositions, and an in-depth independent novel research paper. Becoming successful critical readers and writers will afford students the opportunity to “see” the world from a different and exciting vantage point. Students will submit all required papers to the turnitin.com system as well. (See Research Requirement)*</p>		

AP ENGLISH LITERATURE AND COMPOSITION		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: English	Duration: Full-Year
Prerequisites: Grade of an “A” in AP Language/Composition or a “B” with a recommendation from the AP Language teacher. For Honors English 11 students, placement will be contingent upon an “A,” a recommendation from the Honors 11 English teacher, along with submission of multiple writing samples for review.		
This Course will not be offered during the 2023-2024 school year and will return for the 2024-2025 school year. It will run every other year, opposite AP English Language and Composition.		
Course Description: This intensive reading and writing course examines the recognized classics of World Literature. In adherence to the PA ELA Core Standards, students will read the works of authors ranging from Sophocles to Shakespeare to Sartre and critically analyze aspects of these works in detailed written assignments, as well as Socratic Seminar discussions. An examination of vocabulary through literature, figurative language, and literary techniques will remain a focus throughout the course. This course will prepare college-bound students for freshman English, college composition, and literature courses.		
Note: To participate in this course, successful completion of summer reading and writing assignments is required.		

MULTIMEDIA DESIGN 1		Credit Value: 1.0
Grade Level: 10, 11, and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: This course focuses on the foundations of digital and multimedia design principles. Students will engage with Adobe Creative Suite to work with various media including Photoshop, Premier Pro, and After Effects. Students will explore digital images, as well as video media. By the end of the course, students will have a foundation in digital imagery, as well as video production and editing. Some projects students will create include Photoshop images, original commercials, movie trailers, and original short movies. This course requires a strong foundation with basic computer skills. In addition, the course is a fast-paced, project-based course that requires in class participation and working with peers and groups to complete projects outside of the school day. After completing the course, students can progress to Multimedia Design 2.		

MULTIMEDIA DESIGN 2		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Multimedia Design 1		
Course Description: This course will teach students advanced photography, camera functions, video editing, media analysis, and filmmaking. Students will work in groups to write, shoot, and edit their own movie projects. Sample student projects during the year include PSAs, commercials, short films, and music videos. Students screen selected films and/or clips during class throughout the year to enhance discussions and projects.		

COLLEGE AND CAREER PREPARATION		Credit Value: 0.5
Grade Level: 10 and 11	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: This course assists students to explore direction beyond high school in a post-secondary setting by addressing topics such as tuition and fees, acceptance criteria, application procedures, resume creation, letters of recommendation, and college essays. The course will also expose students to career exploration via personality testing and research to uncover potential paths beyond high school and how best to prepare. Ultimately, the student will work to complete a portfolio that evidence their research for use with future processes.		

ETHICAL DILEMMAS		Credit Value: 0.5
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: In this course students will analyze and discuss various ethical dilemmas to help them consider their own beliefs on issues happening around the globe and on topics that affect us as human beings. Students will get an introduction to philosophy and the ideas that drive our morals in society, as well as to psychology and sociology. Students will be working on improving reading and writing skills through the various ethical dilemmas and be working on critical thinking and argumentative skills. This course will aid in the development of writing and communication skills necessary for all 9 th -12 th grade English courses. To prepare students for future careers, this course will provide students with an opportunity to add to their career portfolio as well as to the skillset necessary for jobs that require writing, speaking, and critical thinking.		

PUBLIC SPEAKING		Credit Value: 0.5
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: This course design allows students to develop their communication and rhetoric skills, which are essential for success in any career path. Students will prepare, research, and present informative, persuasive, demonstrative, and entertaining speeches. Students will also analyze and evaluate historic speeches as well as works from the present.		

Mathematics Department Course Descriptions

ACADEMIC ALGEBRA I		Credit Value: 1.0
Grade Level: 9, 10 and 11	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will formalize and expand on Algebraic concepts established in previous coursework. Students will deepen and extend their understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students will engage in methods for analyzing and using functions. Students will move between multiple representations of functions including but not limited to linear, exponential and quadratics. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.</p>		
<p>Note: The Keystone Algebra Exam will be administered at the conclusion of this course.</p>		

ACADEMIC GEOMETRY		Credit Value: 1.0
Grade Level: 9, 10 and 11	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Algebra I		
<p>Course Description: Students will design, develop, and promote reasoning and problem solving to validate geometric concepts and properties. Students will explore rigid and non-rigid figures including triangles, quadrilaterals, polygons, polyhedrons and circles. Students will integrate algebraic and geometric concepts. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.</p>		

HONORS GEOMETRY		Credit Value: 1.0
Grade Level: 9 and 10	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Hon Algebra I, 70%		
<p>Course Description: Students will design, develop and promote reasoning and problem solving to validate geometric concepts and properties. Students will explore rigid and non-rigid figures including triangles, quadrilaterals, polygons, polyhedrons and circles. Students will integrate algebraic and geometric concepts. Topics are similar to Academic Geometry but are covered at an accelerated pace and in more depth. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.</p>		

ACADEMIC ALGEBRA II		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Algebra I, Geometry		
<p>Course Description: Students will focus on the extension of the number system to a complex field, elementary functions using multiple representations (graphical, numerical, algebraic and verbal) including linear, quadratic, polynomial, rational, exponential, and logarithmic functions, linear systems and matrices, probability and sequences and series. Problem solving mathematical practices influence the learning throughout the course. Students will use descriptive statistics and probability as tools to make inferences. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.</p>		

HONORS ALGEBRA II		Credit Value: 1.0
Grade Level: 9, 10 and 11	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Hon Algebra I, Hon Geometry at 70%, or teacher recommendation		
<p>Course Description: Students will focus on the extension of the number system to a complex field, elementary functions using multiple representations (graphical, numerical, algebraic and verbal) including linear, quadratic, polynomial, rational, exponential, and logarithmic functions, linear systems and matrices, probability and sequences and series. Problem solving mathematical practices influence the learning throughout the course. Topics are similar to Academic Algebra II but are covered at an accelerated pace and in more depth. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.</p>		

ACADEMIC PRE-CALCULUS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Algebra II		
<p>Course Description: Students will cover selected topics in Advanced Algebra (Polynomials of Higher Degree, Rational Functions, Exponential Functions, Logarithmic Functions), Trigonometry (The Unit Circle, Trigonometric Functions of Any Angle, Inverse Trigonometric functions, Trigonometric Identities, Solving Trigonometric Equations) and Analytical Geometry (Circles, Parabolas) in depth. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.</p>		

HONORS PRE-CALCULUS		Credit Value: 1.0
Grade Level: None	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Hon Algebra II at 75%,		
Course Description: Students will cover selected topics in Advanced Algebra (Polynomials of Higher Degree, Rational Functions, Exponential Functions, Logarithmic Functions), Trigonometry (The Unit Circle, Trigonometric Functions of Any Angle, Inverse Trigonometric Functions, Trigonometric Identities, Solving Trigonometric Equations) and Analytical Geometry (Circles, Parabolas, Ellipses, Hyperbolas, Parametric Equations) in depth. Students must be willing to spend additional preparation time for this course. Topics are similar to Academic Pre-calculus but are covered at an accelerated pace and in more depth. This course will prepare students who have an interest in pursuing careers in STEM or vocational technologies.		

AP CALCULUS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Hon Pre-calculus at 75% or teacher recommendation		
Course Description: This college level course covers theorems on limits, derivatives, integrals, applications of integration, transcendental functions and parametric equations. This course also requires extra preparation time.		
Note on the CHS option: While listed as an AP course, students may enroll with a CHS option through Seton Hill University		

CHS CALCULUS II		Credit Value: 1.0
Grade Level: 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: AP Calculus at 75% or teacher recommendation		
Course Description: Students will continue the study of integration (substitution rules, partial fractions, improper integrals, areas between curves, applications to physics), vectors, parametric & polar curves, sequences and series, and differential equations. This course requires extra preparation time.		

CHS BUSINESS CALCULUS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Hon Pre-calculus at 75% or teacher recommendation		
Course Description: This course is an introduction to calculus for students interested in business, economics and other social sciences. Topics covered include derivatives, applications of derivatives, exponential and logarithmic functions and integration. Focus on the application of real-life concepts provides rigor to the course.		

PROB & STATS / ELEM ALGEBRA		Credit Value: 1.0
Grade Level: 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Algebra I		
Course Description: This course covers learning about the methods of descriptive statistics, which include data collection through surveys and displaying and summarizing data. Basic rules of probability will be covered. Methods of inferential statistics will be introduced, including creating confidence intervals for sample data.		

CHS PROBABILITY & STATISTICS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Pre-calculus, Teacher Recommendation		
Course Description: This course covers learning about the methods of descriptive and inferential statistics. Topics include data collection and description, hypothesis testing, correlation and regression, and the analysis of variance and contingency tables.		
Note on the CHS option: Students must take an online placement test and meet University of Pittsburgh required scores to enroll and be eligible to earn college credit.		

INTRODUCTION TO COMPUTER SCIENCE - PYTHON		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: This course offers an introduction to computer science. Students will learn the basics of computer programming and computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course covers the basic building blocks of programming along with other central elements of computer science. It provides a foundation for knowing how to utilize the tools for computer science and prepares students for advanced study in computer science. The course allows students to work independently in text-based Python. The course provides students with an understanding of the types of careers that require a computer science background.		

AP COMPUTER SCIENCE A - JAVA		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Mathematics	Duration: Full-Year
Prerequisites: Intro. to Comp. Sci. or Teacher Recommendation		
Course Description: This course is designed for 11-12 grade students who want to pursue a career in programming. Java requires strong mathematical and problem-solving skills. The course will prepare students for the AP Computer Science exam. Students will learn to design and implement computer programs that solve problems relevant to today's society, including art, media, and engineering. AP Computer Science A teaches object-oriented programming using the Java language and is meant to be the equivalent of a first semester, college-level course in computer science. It will emphasize problem-solving and algorithm development and use hands-on experiences and examples so that students can apply programming tools and solve complex problems.		

ADVANCED COMPUTER APPLICATIONS		Credit Value: 0.5
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: Computer Applications		
Course Description: This course explores the advanced features of Excel such as complex formulas, Pivot tables, Pivot charts, and embedding and linking objects. This course introduces the components of a Microsoft Access database. Topics included are designing and creating tables, using existing databases to find and display data, using queries effectively, designing forms and reports.		

PERSONAL FINANCE		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Personal Finance	Duration: Semester
Prerequisites: None		
Course Description: Students will learn the skills to successfully manage their finances. Aligned to the PA Academic Standards, students will explore the concepts of money management, earning income, borrowing money, financial services, and risk management as well as savings and investments. Upon completion of the course, students will understand how to make financial decisions that support their future goals.		
Beginning with the class of 2025, all students must take this course before they graduate.		

Social Studies Department Course Descriptions

UNITED STATES HISTORY 9		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: Social Studies	Duration: Full-Year
Prerequisites: None		
<p>Course Description: This course will focus on US History beginning with post-Civil War and Reconstruction. Students will examine the political, cultural, social, and economic history of the nation up through and including WWII. The course will integrate primary and secondary source documents with an emphasis on analysis, writing, and discussion. This course will aid in the development of analytical skills necessary for future social studies courses. This course will expose students to many careers that emerged in the post-Civil War era of American History.</p>		

HONORS US HISTORY 9		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: Social Studies	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will utilize primary source documents, critical thinking, and evaluation skills to examine US History beginning with the post- Civil War and Reconstruction. This course will focus on US History beginning with post-Civil War and Reconstruction. Students will utilize primary source documents, critical thinking skills, and evaluative writing at an accelerated pace with more in-depth coverage of to examine the political, cultural, social, and economic history of the nation up through and including WWII. The course will integrate primary and secondary source documents with an emphasis on analysis, writing, and discussion that will prepare students for future Social Studies courses, including AP and CHS courses.. In addition, students will practice problem solving and collaboration skills.</p>		

WORLD CULTURES		Credit Value: 1.0
Grade Level: 10	Fulfills Graduation Requirement: Social Studies	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will examine global and cultural history. Students will investigate the people, events, conflicts, and customs of diverse groups from around the world, while analyzing both the past and present. Students will participate in discussion, read, and evaluate primary and secondary sources, compose essays, conduct research, and create projects to demonstrate their comprehension of course topics. This course will teach how to think critically an analyze data.</p>		

HONORS WORLD CULTURES		Credit Value: 1.0
Grade Level: 10	Fulfills Graduation Requirement: Social Studies	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will examine global and cultural history at an accelerated pace. Students will investigate the people, events, conflicts, and customs of diverse groups from around the world, while analyzing both the past and present. Students will participate in discussion, read, and evaluate primary and secondary sources, compose essays, conduct research, and create projects to demonstrate their comprehension of course topics. Students will write research based, historical analyses of both historical figures and eras. This course will teach students how to think critically and analyze data.</p>		

ACADEMIC US GOVERNMENT		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Social Studies	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will develop an understanding of how the government system works so that they can be independent, responsible, and active citizens in our democracy. Students will compare our system of government with those around the world at varying points throughout history. Students will apply the design of our current constitution to the present and future of America so that we decide how, when, and why we need to institute change. This course will provide an overview of the structure of the US government and the function of the branches of government. Special emphasis on founding documents such as the Constitution will drive course content. Students will examine both historical and current events as examples of the functions of government.</p>		

AP US GOVERNMENT & POLITICS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Social Studies	Duration: Full-Year
Prerequisites: 95% or higher in Academic History OR 90% or higher in Honors History		
<p>Course Description: Students will gain an understanding of how our government system works so that they can be independent, responsible, and active citizens in our democracy. Students will analyze primary source documents, court decisions, and mass media articles to identify their intent, purpose, and adaptation over time. Students will examine each branch of government and synthesize solutions for problems that exist in our government. Students will develop an acute understanding of political parties, mass media, and the role of interest groups in the creation of public policy. This course will introduce students to the major American political institutions. Students will study the form and function of the three branches of government. They will also analyze issues related to civil liberties, constitutional rights, conflict between the branches, economic inequality and social issues, the role of political parties, the electoral process, and the political role of propaganda and the media. Students will examine historical and current events as examples of the functions of government. Students will be expected to complete assignments outside of class time.</p>		

ACADEMIC ECONOMICS		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Social Studies	Duration: Semester
Prerequisites: None		
Course Description: This course will examine theory and policy of Macroeconomics, which will include, but will not be limited to government spending, taxation, banking, and money. Students will discuss, analyze, and apply their study to contemporary issues by using periodicals and other primary sources as reference. The course will use examples of the Macro concepts as related to personal finance. This course will help students develop analytical skills and prepare for a post-secondary career.		

AP ECONOMICS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Social Studies	Duration: Full-Year
Prerequisites: None		
Course Description: This course is an introduction to supply and demand, consumer behavior, market structures, and pricing. A policy application to government spending and taxation will also be included. The course will use examples of the Micro concepts as related to personal finance. Students will discuss, analyze, and apply their study to contemporary issues through relevant examples. This course will help students develop analytical skills and prepare them for a post-secondary career.		

AP US HISTORY		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: This course begins with early American colonization and continues up to the present. Students will engage in analytical reading and writing assignments to explore how America has changed over time. This course will focus on developing student's skills in critical thinking, evaluative writing, and interpretation of primary sources. These skills will prepare students for college level course work. Students will be expected to complete assignments independently outside of class. Time management and organization skills and are required to complete independent assignments.		

AP EUROPEAN HISTORY		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: This course will explore the history of Europe from 1450 to the present and explain into the four major areas of development in the European world: cultural, economic, political and social ideals. Students will analyze major themes in European History after 1450 such as poverty and prosperity, institutions of power, Europe’s interaction with the world, the rise and fall of states, and how the individual’s role in society created Europe as we know it today. Students will utilize critical thinking skills, evaluative writing, and interpretation of primary sources to be successful. Students will also make connections in history across time and place, specifically related to how cultural, economic, political and social ideas have developed. These skills will help prepare students for college level course work. Students will practice time management and organization skills through independent assignment completion.</p>		

CIVIL RIGHTS MOVEMENT		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will examine the US Civil Rights Movement in the twentieth century through analysis of primary sources, discussion, and critical reading. Students will begin by exploring the origins of the movement during the Progressive Era and then trace the movement through WWI, the New Deal, WWII, and the Post War Era. Students will spend the majority of the course exploring the Movement in the 1950s and 1960s, and 70s, including how the Movement fit into the larger context of American society and politics and its intersection with other mid-20th century movements. The course will help students frame modern day discussions about race and ethnicity in America today and develop interpersonal skills.</p>		

CONSTITUTIONAL LAW		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will develop a sense of personal and social identity through the process of forming opinions about controversial issues in today’s United States. Students will experiment with how to properly debate, argue, and problem solve using facts and social cues through a semester-long study of conflict resolution. Students will learn the soft skills of constructive criticism, timeliness, and accountability through the process of being part of a debate team. This course will examine the behavior of American citizens and the responsibilities of US Supreme Court Justices. Students will interact with the judicial branch through a series of case studies. These studies include, but are not limited to, famous cases influencing the Bill of Rights and the other 17 Amendments. Students will apply their knowledge of constitutional law to modern day issues and debates through current events. Student role-play will be an integral part of the course activities.</p>		

HOLOCAUST & GENOCIDE		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: Students will engage in course content through critical thinking, analysis, and the study of primary sources. Topics covered will be related to the Holocaust and Genocide in Rwanda and Bosnia. Students will evaluate the significance of these events and the broader phenomenon of genocide in modern times and put the events in the context of current events related to antisemitism, prejudice, and discrimination. Students will express their analysis and thinking through writing, discussion, and projects.		

MODERN AMERICAN HISTORY		Credit Value: 0.5
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: This course focuses on the United States after WWII. Students will analyze the impact of WWII on subsequent decades, evaluate the United States as a world power, and investigate cultural changes in the United States over time. Students will evaluate and analyze primary sources to understand the history of the US and how it applies to their lives in the US today. The course will rely heavily on student analysis and evaluation of primary sources.		

INTRO TO PSYCHOLOGY		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: Students will be introduced to the study of psychology and examine many of the theories and perspectives of the field throughout history. Students will specifically examine psychological concepts such as methods of observation, cognitive factors of learning, stages of memory, influences and measuring intelligence, human development, psychological disorders, types of personalities, and many various perspectives (theories and theorists). There will be an emphasis on developing critical thinking skills, and students will demonstrate those skills through written assignments, project design, and classroom discussions.		

CHS INTRO TO PSYCHOLOGY		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: 80% or higher in history courses		
<p>Course Description: This course introduces students to the study of psychology in an accelerated setting. Students will examine the field of psychology through the use of primary sources, social media, social upbringing, and intrinsic nature. Students will have discussions & debates, use concept analysis, case studies, extensive research, written composition and project design to develop their own opinions and ideas concerning human nature. Students will compare psychological theories involving theories of learning, infant and adolescent development, and a variety of psychological conditions to hypothesize solutions for a more healthy and balanced life. Through discussions, debates, concept analysis, case studies, extensive research, written composition and project design, students will develop their own opinions and ideas concerning human nature. Students will also examine and be able to explain different perspectives and theories throughout the semester. Students will complete assignments independently outside of class time.</p>		

INTRO TO SOCIOLOGY		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: This course introduces students to the study of sociology and examines many of the theories and perspectives of the field throughout history. Students will analyze sociological concepts such as cultural diversity, social change and control, agents of socialization, social stratification, social institutions, urban development, deviance, and crime. Students will develop critical thinking skills and demonstrate those skills through written assignments, project design, and classroom discussions. This course will aid in the development of critical-thinking skills necessary for social studies courses. This course will provide students with the opportunity to research careers related to the sociology field (social workers, data analysts, case workers, paralegals, etc.).</p>		

CHS INTRO TO SOCIOLOGY		Credit Value: 0.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: This course introduces students to the study of sociology in an accelerated setting. Students will examine the impact of social relationships and groups on people and societies around the world. Through discussions, debates, concept analysis, case studies, extensive research, written composition and project design, students will develop their own opinions and ideas concerning human nature and how society influences these people. Students will practice time management skills by independently complete assignments outside of class time. Students will have an opportunity to research careers related to the field of sociology.</p>		

Science Department Course Descriptions

SCIENCE 9		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: Science	Duration: Full-Year
Prerequisites: None		
<p>Course Description: This course is designed for academic 9th grade students. Students will focus on the nature of science and inquiry methods, biochemistry, enzyme function in chemical reactions, characteristics of living things, cellular biology, and Ecology. Class instruction will include lecture, labs, projects, presentations, and a choice to dissect a preserved specimen. This is a preparatory course for the Biology Keystone.</p>		

ACADEMIC BIOLOGY		Credit Value: 1.0
Grade Level: 10	Fulfills Graduation Requirement: Science	Duration: Full-Year
Prerequisites: Completion of/concurrent with Science 9		
<p>Course Description: Students will discover the relationship of structure and function as it relates to the levels of biological organization. Students will develop problem-solving and critical thinking skills through scientific exploration and experimental design. The course will aid in the development of skills needed to be successful in upper-level science courses such as Chemistry and Physics. The course will focus on cellular biology, molecular genetics, Mendelian genetics, bioenergetics, photosynthesis and cellular respiration, evolution, taxonomy, and comparative anatomy and physiology. Class instruction will include lectures, labs, projects, presentations, and a choice to dissect a preserved specimen. Successful completion of this course will result in a skillset for researching, problem-solving, and critical thinking.</p> <p>Note: The Keystone Biology Exam will be administered at the conclusion of this course.</p>		

HONORS BIOLOGY		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: Science	Duration: Full-Year
Prerequisites: Teacher Recommendation		
<p>Course Description: Students will discover the relationship of structure and function as it relates to the levels of biological organization. Students will develop problem-solving and critical thinking skills through scientific exploration and experimental design. The course will aid in the development of skills needed to be successful in upper-level science courses such as Chemistry and Physics. The course will focus on basic principles of biology, biochemistry, energy and enzymes, photosynthesis and cellular respiration, cellular biology, cellular reproduction, molecular genetics, Mendelian genetics, evolution. Class instruction will include lecture, class work, labs, projects, presentations, and homework. This course moves quickly and digs deeper into the curriculum standards. This course will require time outside the classroom to complete all required work and studies.</p> <p>Note: This course is recommended for 9th grade students who are enrolled in both the honors science and math programs; students must be in the honors math program.</p> <p>Note: Keystone Biology Exam will be administered at the conclusion of this course.</p>		

CONCEPTS OF CHEMISTRY		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Science	Duration: Full-Year
Prerequisites: Biology		
Course Description: Students will assess the relationships of matter classification, atomic theory, periodic table, electron placement, formula writing, identifying reactions, the mole concept, stoichiometry, and gas laws. The course follows Next Generation Science Standards with an emphasis on PA Science Standards. This course is designed for students who have scheduling limitations or who have academic needs based on teacher recommendation. This course does NOT have an additional laboratory period. Chemistry is a required course for Highlands graduation.		

ACADEMIC CHEMISTRY		Credit Value: 1.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Science	Duration: Full-Year with lab every other day
Prerequisites: Biology		
Course Description: Students will analyze the topics of matter classification, atomic theory, the periodic table, electron placement, formula writing, identifying reactions, the Mole concept, stoichiometry, acid/base reactions and gas laws. Lab experiences are a significant part of this class. The course follows Next Generation Science Standards with an emphasis on PA Science Standards. Chemistry is a required course for Highlands High School graduation.		

HONORS CHEMISTRY		Credit Value: 1.5
Grade Level: 10 and 11	Fulfills Graduation Requirement: Science	Duration: Full-Year with lab every other day
Prerequisites: Biology, Geometry		
Course Description: Students will defend experimental investigations with proper analysis of results, and cooperative problem-solving skills. This course follows Next Generation Science Standards with an emphasis on PA Science Standards. The curriculum topics mirror the Advanced Placement curriculum: atomic structure, molar relationships, thermochemistry, formula writing, reaction prediction, bonding, gas laws, and acids. This course moves quickly, digs deeper into the curriculum standards, and requires additional lab periods. This course will require time outside the classroom to complete all required work with a strong emphasis on group work. Chemistry is a required course for Highlands High School graduation.		

ACADEMIC PHYSICS		Credit Value: 1.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Science	Duration: Full-Year with lab every other day
Prerequisites: Chemistry		
Course Description: Students will collect and interpret data in lab settings. This course has an emphasis on extensive lab experiences, proper interpretation, and presentation of results, quantitative problem-solving skills, mechanics and dynamics, energy and heat, waves, and sound, optics and electricity. This course is taught at a slower pace with a stronger emphasis on application of concepts than Honors Physics.		

HONORS PHYSICS		Credit Value: 1.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Science	Duration: Full-Year with lab every other day
Prerequisites: Honors Chemistry		
<p>Course Description: Students will relate physical concepts to collecting data and problem solving. The curriculum topics mirror the Advanced Placement curriculum: Motion, Forces, Energy, Momentum, Waves, Rotation and Gravitation. This course moves quickly, digs deeper into the curriculum standards, and requires additional lab periods. This course will require time outside the classroom to complete all required work with a strong emphasis on group work.</p>		

CHS BIOLOGY		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Honors Biology		
<p>Course Description: This course is an elective course that reflects a first year college level course. This course deals with life on the cellular, organismal, and population levels. It begins with in-depth concepts of cellular biology with an overview of biochemistry specific for cellular activity. The course continues into taxonomy, while introducing the fundamental phylogenetic relationships among major groups of living organisms. Morphology, anatomy, phylogeny and reproduction are discussed in relation to groups of living organisms (bacteria, protists, plants, invertebrates, and vertebrates). Finally, biological communities and ecosystems, exploring complex interactions between organisms and the living & non-living components of their environment will be discussed. (Emphasis is on population genetics and population ecology. This course is lab-intensive (including AP Biology labs and dissection) and is taught at the college level.</p> <p>Note: Those students who enroll will have the opportunity to receive college credits through Seton Hill University at their own expense.</p>		

AP CHEMISTRY		Credit Value: 1.5
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year with lab every other day
Prerequisites: Honors Chemistry, Geometry, teacher recommendation		
<p>Course Description: Students will investigate college level chemistry concepts and lab experiments. Students must possess strong problem-solving skills and a strong work ethic. Extensive studies outside of class time are required to perform well on the AP exam and in the course. Content focuses on the four big ideas: Scale Proportion and Quantity, Structure and Properties, Transformations, and Energy. Graphing calculators assist students with their learning. Tests and coursework will strictly follow the approved College Board's Advanced Placement Chemistry course of study.</p> <p>Note: Students will be required to complete coursework during the summer, which includes problem sets and writing an experimental theory. There will be an exam within the first week of class to review the content of Honors Chemistry.</p>		

AP PHYSICS		Credit Value: 1.5
Grade Level: 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year with lab every other day
Prerequisites: Physics, AP Calculus (or concurrently), Teacher Recommendation		
<p>Course Description: Students will investigate college level physics concepts and lab experiments. Students must possess strong problem-solving skills and a strong work ethic. Extensive studies outside of class time are required to perform well on the AP exam and in the course. Content focuses on the seven topics: Motion, Forces, Energy, Momentum, Waves, Rotation and Gravitation. The course will rely on calculus to relay understanding of material and solving problems. Graphing calculators assist students with their learning. Tests and coursework will strictly follow the approved College Board’s Advanced Placement Chemistry course of study. It is strongly suggested that students have either completed calculus or are concurrently enrolled in calculus.</p> <p>Note: Students may be required to complete coursework during the summer, which may include readings, experiments and problem sets.</p>		

HONORS ANATOMY AND PHYSIOLOGY		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: CHS Biology		
<p>Course Description: Students will conclude that each individual system plays an integral role in the homeostasis of the human body. Students will discover the structure and function of the human body as it relates to the individual systems. This course is designed to provide students with a general introduction to Human Anatomy and Physiology. This course will focus on anatomical terminology, tissues, the integumentary system, the skeletal system, the muscular system, the cardiovascular system, human development, blood, and articulations of the body. Students enrolled in this course will be expected to participate in daily class lessons, complete models and projects outside the classroom setting and participate in multiple dissections within the classroom. Dissection is mandatory and alternative assignments to dissection will not be provided. This course is recommended for students who plan to pursue careers in the medical field.</p>		

EARTH AND SPACE		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Concepts of Chemistry/Chemistry		
<p>Course Description: Students will investigate Earth's mineral resources and natural history, as well as the science involved in weather prediction and evaluating climate change. Students will understand how the universe is structured and learn how to explore objects in it using astronomy simulation software. Throughout the course, students will be introduced to several STEM careers in geology, meteorology, and astronomy. This course is an elective course for students who are already enrolled in Science 9 or Biology and will possibly take Honors Geology and Planetary Sciences in the future</p>		

HONORS GEOLOGY AND PLANETARY SCIENCES		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Chemistry, Teacher Recommendation		
<p>Course Description: Students will investigate the inner workings and composition of the planet. Students will analyze Earth’s materials and the behavior of plate tectonics and make comparisons with other planets inside and outside of the solar system. Students are expected to complete complex laboratory activities, a scientific research paper, regular homework assignments, and participate in group presentations. Throughout the course, students will explore careers in geoscience and astronomy-related fields. A successful completion of Earth and Space Science is preferred for this course, but not required. This course is an elective course for 12th grade students in the honors program or who have departmental approval.</p>		

NATURAL RESOURCES AND PRODUCTION TECHNOLOGY		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Chemistry		
<p>Course Description: Students will be able to explain how natural resources are extracted and utilized, as well as articulate informed opinions on how those resources could be managed more sustainably. The overall goal of the course is to understand the value that natural resources have for each person on the planet and the urgent need to conserve them for future use. Throughout the course, students will be exposed to a variety of careers related to producing goods and energy with natural resources.</p>		

Business and Technology

MARKETING & SALES		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will develop skills related to marketing, economics, business, marketing functions, pricing, marketing strategies, and goods and services. Students will explore the core functions of marketing, as well as up-to-date trends in marketing which are essential in the operation of a business. Students will have an opportunity to apply the marketing concepts through interactive enrichment activities. Students will enhance their communication and interpersonal skills. Students will also examine the selling process, the steps of a sale, closing the sale, customer-buying decisions, why customers buy, feature benefit selling and selling and product demonstrations. The many career opportunities available in this broad field of study will be explored.</p> <p>Students will reinforce their marketing and sales skills by having the option of competing in DECA: An Association of Marketing Students.</p>		

RETAILING PRINCIPLES		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Marketing & Sales		
<p>Course Description: Students will study the dynamics of retailing, the free enterprise system, principles of promotion and advertising, types of retailing businesses, career opportunities in retailing and marketing businesses. Additional topics covered will be types of retailers, multichannel retailing, consumer buying behavior, retail marketing strategies, supply chain management, store management, retail pricing and store layout/design. Students will also learn proper customer service and selling techniques in retailing. When exiting the class, students will have the skills necessary to research jobs, complete employment applications, and successfully interview for a job. Students will exit the course with a completed resume.</p>		

INTERNATIONAL BUSINESS		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Retailing		
<p>Course Description: Students will be presented with academic skill exercises that explain international business, cultural/social influences, international communications, importing, exporting, international trade, currency/risk management affecting world trade, international career planning, technology and the future global economy. Additionally, this course profiles a variety of interesting careers in the world of international business and identifies the skills and training needed to succeed in the global economy.</p>		

Fine Arts Department Course Descriptions

Music

BAND		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Director's Approval		
<p>Course Description: Students will perform instrumental music from various time periods, cultures, and styles. Required performances include Football Games, Band Festivals, Community Parades, Pep Rallies, Music Performance Assessments, Concerts, and Commencement. Members of the band will study units in both the Marching and Concert settings and are required to attend all summer (Band Camp) and after-school rehearsals. There is no extra-curricular participation in this course.</p> <p>Ensemble music courses are structured around a spiraling curriculum. Band provides students a deeper understanding of content and advanced performance skills each year it is taken. Instrumental music prepares students for future career retention and advancement by developing work habits, cooperation, group interaction, time management, lifelong learning, and performance skills related to the interview process, and entrepreneurial risks & rewards.</p> <p>Note: Students may enroll in both Band and Concert Choir for 0.5 credit each (3 of 6 days for each ensemble in a 6-day rotation), but are required to fulfill all requirements for both courses. Students are not permitted to drop Band, Band Front, or Honors Band once summer Band Camp Begins.</p>		

HONORS BAND		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Director's Approval, Instrumental aptitude at 10 th grade level or higher on one or more of the following: brass, woodwinds, or percussion. Band Class (90%+)		
<p>Course Description: Honors Band (scheduled concurrently with Band) extends the band curriculum by providing students the opportunity for acceleration. Coursework includes, but is not limited to auditioning for Alle-Kiski Honors Band and PMEA Honors Band; research projects based on the students' primary instruments, composers and performers; attendance at "outside" concerts, playing assessments, peer teaching (MS/Elem) and a student recital. <u>Students will not be permitted to drop once summer Band Camp begins.</u></p> <p>Ensemble music courses are structured around a spiraling curriculum. This provides students a deeper understanding of content and advanced development of performance skills through subsequent years of study. Students considering careers in music education, performance, music therapy, music business, worship, technology, etc. are strongly encouraged to take Honors Band. Enrollment for rising 9th graders may be granted with the Director's approval. Instrumental music prepares students for future career retention and advancement through the development of proper work habits, cooperation, group interaction, time management, a mindset of lifelong learning, performance skills related to the interview process, character traits and entrepreneurial risks & rewards.</p>		

JAZZ ENSEMBLE		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Enrollment in Band Class (for Winds and Percussion), Audition and/or Director's Approval		
<p>Course Description: Students will study the history of jazz, scales (blues and other various modes), music theory, jazz band and jazz combo literature, and improvisation. All instrumental sections will be limited in a manner yielding a full and balanced ensemble. Auditions may be required to fill limited positions, with preference given to students currently enrolled in Band Class.</p> <p>Students will perform at all scheduled concerts and festivals. In addition to class time, attendance is required at all after school rehearsals as scheduled by the Director. Students are permitted to enroll in both Jazz Ensemble and Stage Band if they meet the prerequisites and have room in their schedule.</p> <p>Ensemble music courses provides students a deeper understanding of content and advanced development of performance skills through subsequent years of study. Instrumental music prepares students for future career retention and advancement through the development of proper work habits, cooperation, group interaction, time management, a mindset of lifelong learning, performance skills related to the interview process, character traits and entrepreneurial risks & rewards.</p>		

STAGE BAND		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Enrollment in Band class, Audition & Director's Approval		
<p>Course Description: Students will pursue their interests in jazz outside of the regular school day schedule. Stage Band is designed around the history of jazz, scales (blues and various other modes), music theory, big band literature and basic improvisation. All instrumental sections will be limited in a manner yielding a full and balanced ensemble. Auditions may be required to fill limited positions, with preference given to students currently enrolled in Band Class. Ensemble may also be split into two groups, pending enrollment and auditions.</p>		

CONCERT CHOIR		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will develop their singing skills, musical understanding, and showcase their performance abilities. Concert Choir is for any beginner or experienced vocalist that is interested in participating in a more mature and performance-based vocal music elective. Fundamental vocal techniques and music reading skills will be emphasized through rehearsal and performance. Three, four-part choral literature of various styles and periods will be performed.</p> <p>This course will increase student’s performing desires and prepare them for any audition-based vocal music courses in the future. Audition-based vocal music ensembles to include Honors Choir, Variations Show Choir, and Musical Productions. Career readiness skills to include work habits, cooperation and teamwork, group interaction, time management, lifelong learning, character traits, and rewards.</p> <p>Students enrolled are required to perform in all performances scheduled for the ensemble, both during and outside of the school day. The fall semester will consist of one major winter themed concert, plus two additional community performances/concerts. The spring semester will consist of one major spring themed concert.</p> <p>Note: Students may enroll in both Band and Concert Choir for 0.5 credit each (3 of 6 days for each ensemble in 6 day rotation), but are required to fulfill all requirements for both courses. Students are not permitted to drop Band, Band Front, or Honors Band once summer Band Camp Begins.</p>		

HONORS CHOIR		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Audition & Choral Director's Approval		
<p>Course Description: The Highlands Honors Choir is a weighted course that is designed for the advanced choral student who demonstrates growth and mastery of individual and choral vocal techniques, as well as music reading skills. Students will have the opportunity to showcase their performance abilities to the district and community events frequently. Four, six-part choral literature of various styles and periods will be performed.</p> <p>Honors Choir is specifically differentiated based of the quality of student audition, voice part, and student achievement acceptance into the group. Students will be expected to perform at more outside school events, learn more sheet music, sing higher caliber grade sheet music with more vocal splits, and complete more project-based learning assignments. These requirements set Honors Choir apart from Concert Choir.</p> <p>This course will increase students' performing desires and prepare them for any audition-based vocal music courses or lead character roles in the future. Audition-based vocal music ensembles to include Variations Show Choir and Musical Productions. Career readiness skills to include work habits, cooperation and teamwork, group interaction, time management, lifelong learning, character traits, and rewards.</p> <p>Students enrolled are expected and required to perform in all performances scheduled for the ensemble, both during and outside of the school day. Fall semester will consist of one major winter themed concert, plus at least five additional community performances/concerts. Spring semester will consist of one major spring themed concert, plus at least three additional community performances/concerts. (Grades 10 – 12; auditions may be opened to 9th grade if required to balance voice parts.)</p>		

STUDENT ACCOMPANIST		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Audition based and Choral Director's approval.		
<p>Course Description: This course is an independent, 9th period course, that does not regularly meet during the school day. This course requires a student accompanist to demonstrate mastery of music reading skills and piano performance for choral ensembles. Students will participate in private lessons with a piano instructor, outside of the school day. Student accompanists are required to perform in all dress rehearsals and performances scheduled for the ensemble, both during and outside of the school day. The fall semester will consist of one major winter themed concert, plus at least five additional community performances/concerts. The spring semester will consist of one major spring themed concert, plus at least three additional community performances/concerts.</p> <p>This course will increase students' performing desires and prepare them for any professional instrumental ensemble or pit orchestra experience in the future. Career readiness skills to include work habits, cooperation and teamwork, group interaction, time management, lifelong learning, character traits, and rewards.</p>		

MUSIC THEORY 1		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Director's Approval		
<p>Course Description: Students will study of the mechanics of music, key signatures, scales, intervals, and chords in written and aural form. Students should have prior knowledge of music and be able to demonstrate musical literacy through instrumental or vocal performance. Current enrollment in band and/or choir is encouraged, but not required. Students will apply the skills learned here via an instrument and/or their voice. Basic piano skills are a plus. Studying music prepares students for future career retention and advancement through the development of proper work habits, cooperation, group interaction, time management, a mindset of lifelong learning, skills related to the interview process, character traits and entrepreneurial risks & rewards.</p>		

HONORS MUSIC THEORY 2		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Theory and Harmony I (75%), Teacher Recommendation		
<p>Course Description: Students will expand upon the fundamental skills of Music Theory 1, taking gaining a deeper understanding of musical form and structure. Honors Music Theory 2 offers an emphasis on aural training, solfeggio, and application. Students will explore arrangement or composing based on standard and current literature, with projects involving performance of student work. Basic piano keyboarding is incorporated into many elements of this course.</p> <p>This course will help to prepare future music majors or minors for college-level theory courses, and services music enthusiasts who would like to know more about musical form and composition. Studying music prepares students for future career retention and advancement through the development of proper work habits, cooperation, group interaction, time management, a mindset of lifelong learning, skills related to the interview process, character traits and entrepreneurial risks & rewards.</p>		

MUSIC TECHNOLOGY		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will create beats and loops. Students will study soundwaves, signal flow, stereo systems, multi-track recording, digital synthesizers, sequencers, and Musical Instrumental Digital Interfaces (MIDI). Music Tech utilizes digital audio workstations (DAW), various software programs – GarageBand, ProTools, StudioOne, and Soundtrap, as well as studio-grade microphones for recording. Electronically produced sound (loops, beats, etc.) will be used to create and present projects.</p> <p>Students should understand music fundamentals (rhythm, melody, etc.). Music in performance and study prepares students for future career retention and advancement through the development of proper work habits, cooperation, group interaction, time management, a mindset of lifelong learning, skills related to the interview process, character traits and entrepreneurial risks & rewards.</p>		

JAM BAND BASICS		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: This introductory course is designed to teach students with little-to-no prior experience how to play on a functional level. Students will learn the basics of drums/percussion, piano keyboarding, and ukulele in a fun, self-paced, project-based environment. Students will also study the elements of music (rhythm, melody, etc.) and notation. Consider pairing this course with Music Theory 1 for the best experience. Students will learn to play through technical instruction and individualized practice time. Music will include a variety of styles, from simple melodies to contemporary pop & rock songs and everything in between. Students will be able to apply what they learn here outside of school by playing with friends or extending their study of these three foundational instruments to things like guitar, bass and drum-set.</p> <p>Music in performance and study prepares students for future career retention and advancement by developing work habits, cooperation, group interaction, time management, lifelong learning, and performance skills related to the interview process, and entrepreneurial risks & rewards.</p>		

BROADWAY AND BEYOND		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will research historical composition and performance techniques of musicals, explore musical plots in the context of social trends or influences, re-enact scripted musical material, and perform songs from show productions. Students will engage in musical set design, scene structure, and character analysis. Typically, at least six different musical scripts are explored and analyzed within the class during a semester. As a project-based learning assignment during musical season, students will design, create, and construct the current set of the musical production in collaboration with the art department. This course will also help students continue to develop and improve six fundamental vocal techniques: Expression, Diction, Embouchure, Breathing, Posture, and Relaxation. Individual singing for assessment and peer review will be required with solo performances. It is encouraged that students are in one of the four vocal music ensembles (Honors Choir, Concert Choir, Variations Show Choir or Musical Production) but not required.</p>		

MOVE & GROOVE		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: This course will help guide any beginner or experienced dancer, to research the fundamentals of dance. Using a guided college level music book titled, "Creative Dance for All Ages," students will explore how to creatively use their bodies within musical performances of dance. Students will have the exposure of musical theater and modern music to create, compose, and perform choreographed dance routines. Choreography will be created for winter and spring choral concerts. Individual singing, dancing, and/or acting assessments and peer review will be required within weekly performance days for the class. Basic music theory will be applied in understanding how to read music and create choreography for selected songs.</p> <p>This course will increase students performing desires and prepare them for any audition-based music courses or lead character roles in the future. Audition-based vocal music ensembles to include Variations Show Choir and Musical Productions. Career readiness skills to include: work habits, cooperation and teamwork, time management, lifelong learning, character traits, and rewards.</p>		

MUSIC AND MAGIC		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: Students will study Disney musicals, the philosophy of magical moments, and researching musicals released by www.mtishows.com for high schools to license. Music and Magic will be taught by a former Disney Cast Member of 10 years, sharing a performer's "four keys to success." Students will research historical composition and performance techniques of Disney musicals, explore musical plots in the context of social trends or influences, re-enact scripted musical material, and perform songs from show productions. Students will engage in musical set design, scene structure, and character analysis. Typically, at least six different musical scripts are explored and analyzed within the class during a semester. As a project-based learning assignment during musical season, students will design, create, and construct the current set of the musical production in collaboration with the art department. This course will also help students continue to develop and improve six fundamental vocal techniques: Expression, Diction, Embouchure, Breathing, Posture, and Relaxation. Individual singing for assessment and peer review will be required with solo performances. It is encouraged that students are in one of the four vocal music ensembles (Honors Choir, Concert Choir, Variations Show Choir or Musical Production) but not required.</p>		

Visual Arts

FUNDAMENTALS OF VISUAL ART		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: Students will explore a variety of art media and sets the foundation for further study in the HHS Art department. Throughout the year, students will apply the Elements and Principles of Design in drawing, printmaking, painting, sculpture, ceramics, jewelry, and glass. This course is the prerequisite for all other courses in the Visual Art department and students must pass with a 75% to advance to upper level art classes.		

DRAWING & PAINTING		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Fundamentals		
Course Description: Students will build on their learning from Fundamentals and utilize a variety of drawing & painting media such as pencil, marker, pastel, ink, pencil, acrylic paint, watercolor, oil paint, and charcoal to create individualized artworks. This is a studio course, so students are expected to work during class on the assigned projects.		

CERAMICS		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Fundamentals		
Course Description: Students will build on their learning from Fundamentals utilizing a variety of methods for creating clay artworks by handbuilding, throwing on the pottery wheel, and using a variety of firing methods to finish the pieces. This is a studio course, so students are expected to work during class on the assigned projects.		

SCULPTURE & GLASS		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Fundamentals		
Course Description: Students will build on their learning from Fundamentals specifically focusing on creating 3 dimensional artworks using a variety of materials. Students will work in both fused glass in the kiln and various sculpture materials. This is a studio course, so students are expected to work during class on the assigned projects.		

PRINTMAKING & MIXED MEDIA		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Fundamentals		
Course Description: Students will create artworks building on learning from Fundamentals utilizing printmaking and mixed media techniques using a variety of materials. This is a studio course, so students are expected to work during class on the assigned projects.		

JEWELRY & METAL		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Fundamentals		
Course Description: Students will create artworks building on learning from Fundamentals using a variety of materials, the focus is on creating wearable works of art and other works of art that are created using metal working techniques and a variety of other media. This is a studio course, so students are expected to work during class on the assigned projects.		

INDEPENDENT ART		Credit Value: 1.0
Grade Level: 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: FUND. & 3 STUDIO CLASSES WITH ACCEPTED APPLICATION		
Course Description: Students will pursue an individualized course of visual art study based upon their skill and interest. This course requires teacher approval following a juried review of student's application. Students must be able to meet 5 times a week for a full class period.		

Technology Education Department Course Descriptions

ARCHITECTURAL CADD		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will learn about different types of residential homes, what establishes home values, open floor plans vs. traditional floor plans, and design trade-offs and considerations that Architects contemplate when working on any given project. Students will apply and analyze proper design aspects, considerations, and requirements when creating functional floorplans. Students will also design and build a scale model home using standard framing construction techniques. Plot plans, elevations, construction details, floor plans, three-dimensional building design, and model construction will all be explored. Students will utilize the latest version of Revit architectural design software.</p>		

PLTW Introduction to Engineering and Design		Credit Value: 1.0
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will explore a broad range of engineering topics through project-based learning that engages and challenges their critical thinking and problem-solving skills. Students will apply scientific and mathematic principles including mechanisms, the strength of structures and materials, simple and complex machines, and communicating technical designs through engineering graphics. To prepare students for their careers, they will develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.</p>		

EVOLUTION OF GAMES		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will design, build, test, and evaluate all aspects of board games. Students will discuss how core game dynamics are the pillars of a game, such as “race to the end” (Candyland) or “territorial acquisition” (Risk). Students will learn that ancient cultures designed games such as Mancala, the Game of Ur, and Othello using available technology and resources. In addition to experiencing the benefits game playing has within a society, students will prototype and play games. Students will work in a team to design and create their own original game using graphic design software (Adobe Illustrator) to create the play area, laser engraver technology to cut out wooden parts and pieces, and 3d Modeling software (TinkerCAD) to design items that can be 3-D printed. To prepare students for their careers, additional competencies include using and managing a shared Google Drive, and basic skills in Google Docs, Slides, and Sheets.</p>		

GRAPHIC DESIGN		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will explore four fields of graphic design: Desktop Publishing, Vinyl Stickers and Posters, T-shirt Design, and Laser Engraving Technology. Students will illustrate broad concepts such as color theory, the elements of design, layout, and principles of design into individual projects using Adobe Illustrator, a state-of-the-industry graphic design program. To prepare students for their careers, a final project requires them to create a brand experience for a fictitious company, designing all of the elements that will make up its brand, including a logo, website, promotional flyers, advertisements, and other unconventional advertising items.</p>		

HOME MAINTENANCE		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will explore and apply basic appliance maintenance and upkeep. Home Maintenance also covers basic house construction; students will use basic hand and portable power tools to complete tasks used for basic repair and maintenance of residential systems. Additionally, students will complete activities in the fields of framing, residential plumbing systems, residential electrical systems, drywall hanging/finishing, architectural coatings (paint), flooring, and finish trim work. Classroom instruction is combined with hands-on experiences in performing tasks like those required in the home. Students will also explore career opportunities in the fields of carpentry, plumbing, electrical, drywall hanging/finishing, painting, and flooring.</p>		

ROBOTICS I		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
<p>Course Description: Students will explore the basic understanding of robotic operation systems such as control, guidance, propulsion, suspension, power, and programming. Students will create small robots (using VEX Robotics kits) designed and programmed to complete specific tasks. This course also integrates Science, Math, and Engineering principles as it applies to robotic engineering. Robotics 1 is designed to prepare students for Honors Robotics II as well as robotic competitions.</p>		

HONORS ROBOTICS 2		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Completion of Robotics I		
<p>Course Description: Students will design, analyze and create the functions of robotic operation systems such as control, guidance, propulsion, suspension, power, and autonomous programming. The emphasis of the second level course is on computer programming as it relates to autonomous functions and robotic control. Students will have the opportunity to create, test and modify their robot prototype design to compete in robotics competitions against other high schools within the region.</p>		

WOOD MANUFACTURING 1		Credit Value: 0.5
Grade Level: All	Fulfills Graduation Requirement: Elective	Duration: Semester
Prerequisites: None		
Course Description: Students will manipulate hand and power tools safely to complete a variety of cutting and joining operations. Students will read and interpret a set of drawings to create physical projects such as a Dresser-top Box, Rustic Tote, Cutting Board, Wall-Mount Hat Rack, Birdfeeder, and Golf Ball Launcher. Projects are introductory in nature and will be assembled using fasteners (such as screws and nails) and glue. Students will explore how these basic skills are used in careers in the building trades. Time permitting, students will explore specialty machines and computer software such as a Laser Engraver and CNC Router to personalize their projects.		

WOOD MANUFACTURING 2		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Wood Manufacturing 1		
Course Description: Students will apply basic tool knowledge gained from Wood Manufacturing 1 to advanced woodworking techniques while producing larger scale projects such as a lamp, stool, wall cabinet, and 1-drawer end table. Students will research furniture styles and classify various types of furniture in that style. To prepare students for careers in the trades, advanced design & planning, batch production, joinery, assembly, as well as finishing techniques will be discussed.		

WOOD MANUFACTURING 3		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: Students will design and create the form and function for a piece of furniture. Students will explore advanced design & planning, production, joinery and assembly, as well as finishing techniques. To prepare students for their careers, students will engage in product planning and developing, applying skills such as time management, budgeting, and journaling. NOTE: Due to the open-ended nature of this course, additional materials (such as project-specific hardware) may need to be supplied by the student.		

HONORS ENGINEERING CADD		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: Students will use computer software to design and/or recreate virtual 3D-models of mechanical objects. Students will apply knowledge of Autodesk Inventor computer software as they become the engineers and design solutions that solve problems. Solutions will then be tested and analyzed as they are prototyped utilizing 3D printing technology. Blueprint reading and Geometric Dimension and Tolerancing (GD & T) will be taught concurrently with each new 3D model that students create. The culminating activity deals with Reverse Engineering, in which the students disassemble a complex mechanical object and recreate a virtual model of it. To prepare students for their careers, this course adopts the engineering mindset that focuses on the process more than a product.		

World Languages Department Course Descriptions

GERMAN 1		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading, and writing skills in beginning German. The goal of the course is the acquisition of a useful, communicative command of the language at a novice-low to novice-mid level on the national scale, as established by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. This goal will be realized through maximum exposure to authentic target-language input (oral and visual), active oral and written practice of real-life language tasks or functions (e.g., introducing and describing yourself and others, discussing your class schedule, interpreting infographics, etc.), and exploration of cultural subtleties conveyed by language, thought, and customs.</p>		

GERMAN 2		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: German 1, Teacher Recommendation		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading, and writing skills in beginning German. The goal of the course is the acquisition of a useful, communicative command of the language at a novice-mid to novice-high level on the national scale, as established by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. This goal will be realized through maximum exposure to authentic target-language input (oral and visual), active oral and written practice of real-life language tasks or functions (e.g., ordering a meal, visiting a doctor's office, shopping in a clothing store, etc.), and exploration of cultural subtleties conveyed by language, thought, and customs.</p>		

GERMAN 3		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Teacher Recommendation and 70% or higher in German 2		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading and writing skills in intermediate German. The goal of the course is the acquisition of a useful, communicative command of the language at the novice-high to intermediate-low level on the national scale as established by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. This goal will be realized through maximum exposure to authentic target-language tasks of functions (e.g., making travel arrangements, discussing global concepts of beauty, interpreting children's books, etc.) and exploration of cultural subtleties conveyed by language, thought and customs.</p>		

HONORS GERMAN 4		Credit Value: 1.0
Grade Level: 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Teacher Recommendation and 70% or higher in German 3		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading, and writing skills in intermediate German. The goal of the course is the acquisition of a useful, communicative command of the language at an intermediate-low to intermediate-mid level on the national scale, as established by the American Council on the Teaching of Foreign Languages and the Education Testing Service. This goal will be realized through maximum exposure to authentic target-language input (oral and visual), active oral and written practice of real-life language tasks or functions (e.g., conversing with an exchange student, discussing current events, analyzing environmental problems, etc.), and exploration of cultural subtleties conveyed by language, thought, and customs.</p>		

SPANISH 1		Credit Value: 1.0
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading, and writing skills in beginning Spanish. The goal of the course is the acquisition of a useful, communicative command of the language at a novice-low to novice-mid level on the national scale, as established by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. This goal will be realized through maximum exposure to authentic target-language input (oral and visual), active oral and written practice of real-life language tasks or functions (e.g., introducing and describing yourself and others, discussing your class schedule, interpreting infographics, etc.), and exploration of cultural subtleties conveyed by language, thought, and customs.</p>		

SPANISH 2		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Spanish 1, Teacher Recommendation		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading, and writing skills in beginning Spanish. The goal of the course is the acquisition of a useful, communicative command of the language at a novice-mid to novice-high level on the national scale, as established by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. This goal will be realized through maximum exposure to authentic target-language input (oral and visual), active oral and written practice of real-life language tasks or functions (e.g., ordering a meal, visiting a doctor's office, shopping in a clothing store, etc.), and exploration of cultural subtleties conveyed by language, thought, and customs.</p>		

SPANISH 3		Credit Value: 1.0
Grade Level: 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Teacher Recommendation and 70% or higher in Spanish 2		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading and writing skills in intermediate Spanish. The goal of the course is the acquisition of a useful, communicative command of the language at the novice-high to intermediate-low level on the national scale as established by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. This goal will be realized through maximum exposure to authentic target-language tasks of functions (e.g., making travel arrangements, discussing global concepts of beauty, interpreting children’s books, etc.) and exploration of cultural subtleties conveyed by language, thought and customs.</p>		

CHS SPANISH 4		Credit Value: 1.0
Grade Level:	Fulfills Graduation Requirement:	Duration:
Prerequisites:		
<p>Course Description: This course is part of a proficiency-based language program designed to provide maximum opportunities for students to develop functional listening, speaking, reading, and writing skills in intermediate Spanish. The goal of the course is the acquisition of a useful, communicative command of the language at an intermediate-low to intermediate-mid level on the national scale, as established by the American Council on the Teaching of Foreign Languages and the Education Testing Service. This goal will be realized through maximum exposure to authentic target-language input (oral and visual), active oral and written practice of real-life language tasks or functions (e.g., conversing with an exchange student, discussing current events, analyzing environmental problems, etc.), and exploration of cultural subtleties conveyed by language, thought, and customs.</p>		
<p>Course Description: Students may enroll in the <i>College in High School</i> program through the La Roche University to earn 3 college credits applicable to most colleges or universities.</p>		

Family and Consumer Science

FAMILY AND CONSUMER SCIENCE		Credit Value: 0.5
Grade Level: 9, 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: None		
Course Description: This semester-long course will teach students the skills to manage the challenges of living and working in a diverse, global society. Topics will address the functioning of families and their interrelationships with work, community, and society. The focus will be on individuals' and families' recurring, practical problems. Classroom experiences will allow students to develop the knowledge and skills needed to identify, create, and evaluate goals and alternative solutions to significant problems of everyday life. Students will be taught to take responsibility for the consequences of their actions as they make choices about personal, family, and work responsibilities.		

Health and Physical Education Department Course Descriptions

WELLNESS 9 (Health & Physical Education)		Credit Value: 1.0
Grade Level: 9	Fulfills Graduation Requirement: None	Duration: Full-Year
Prerequisites: None		
<p>Course Description: The Wellness course is designed to provide students with an opportunity to learn about the physical, mental/emotional, and social aspects of health. An emphasis is placed on the importance of making healthy decisions that will lead to a higher quality of life. Course information is presented in a practical manner incorporating current health trends and concerns. Content areas include: Personality, Stress, Mental Disorders, Relationships, Wellness, Nutrition, Non-infectious Disease, Human Growth and Development, STD'S, Alcohol, Drugs, and Personal Safety.</p> <p>The Physical Education portion of this course is designed to improve physical fitness levels while focusing on the tactile learner. It introduces the student to a variety of concepts which include motor learning, exercise physiology and kinesiology. The course has been developed to meet the increasingly diverse physical needs of the intermediate level student, focusing not only on the development of physical skills, but on concepts essential to building self-esteem, group problem solving, and the importance of team work to accomplish success.</p>		

PHYSICAL EDUCATION 10-12		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Wellness 9	Duration: Semester
Prerequisites: Wellness		
<p>Course Description: The purpose of this course is to develop the physical skills necessary to be competent in many forms of movement, knowledge of team sports concepts such as offensive and defensive strategies and tactics, and appropriate social behaviors within a team or group setting. The integration of fitness concepts throughout the content is critical to the success of this course.</p> <p>Units may include, but are not limited to, the following sports: Volleyball, Kickball, Dodgeball, Ultimate Frisbee, Flag Football, Team Handball & Basketball.</p>		

BEGINNER YOGA		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Wellness 9	Duration: Semester
Prerequisites: Wellness		
<p>Course Description: Yoga 1 encourages lifelong fitness. Students will learn yoga postures, breathing techniques, and relaxation methods to improve health and mindfulness. Students will develop body awareness and correct alignment in a variety of yoga poses including standing, balance, hip-opening, inversions, arm balances, twists, back bending, and core strengthening exercises. Each class will have a specific focus: pose break-down, yoga flows, strength-building routines, or relaxation.</p>		

ADVANCED YOGA		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Wellness 9	Duration: Semester
Prerequisites: Beginner Yoga & must be recommended by the PE teacher		
Course Description: Advanced Yoga builds upon the skills and knowledge acquired in the first yoga course. After reviewing basic sequences, students will have the opportunity to create sequences of their own to add variety. There will be an emphasis on identifying weakness in muscular strength and endurance and then developing strategies to improve. In addition to group practice, students will personalize their practice by locating and utilizing resources for skills they personally want to improve. Students will have the opportunity to practice more advanced skills like floating, binding, arm balances, inversions, and Chaturanga variations. Various breath techniques, different styles of yoga, mindfulness practices, and self-reflection will be incorporated.		

WALKING FOR WELLNESS		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Wellness 9	Duration: Semester
Prerequisites: Wellness		
Course Description: This course gives students an activity that they can participate in independently throughout their lifetime. Most of the walking activities will take place outdoors so appropriate dress is essential. Students need to prepare for all types of weather and dress accordingly. Some of the activities include walking, hiking, navigation, and scavenger hunts.		

PERSONAL FITNESS		Credit Value: 0.5
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Wellness 9	Duration: Semester
Prerequisites: Must pass a pre-course swim test and be recommended by the PE teacher		
Course Description: This course is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn the basic fundamentals of strength training, aerobic training, stretching and overall fitness training and conditioning. Course includes both lecture and activity sessions. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors in fitness, wellness, and movement activity for a lifetime.		

Fire Service Training

FIRE SERVICE TRAINING (10-12)		Credit Value: 1.0
Grade Level: 10, 11 and 12	Fulfills Graduation Requirement: Elective	Duration: Full-Year
Prerequisites: Must pass a pre-course swim test and be recommended by the PE teacher		
Course Description: This course is a distance learning elective that is offered in collaboration with the Highlands School District, Allegheny County Emergency Services, and the Allegheny County Fire Academy. Staff Instructor Krzeminski will provide entry level training along with 8 hands on sessions throughout the school year at the Allegheny County Fire Academy. This course is possible through the efforts of the Highlands Emergency Services Alliance (HESA) and the Alle-Kiski Health Foundation. The vision is to create highly trained professionals who are dedicated to exceeding the needs of their communities. Course topics will include fire training, first aid, and CPR.		

Forbes Road Career and Technical Center

Forbes Road CTC provides many educational courses and programs that can help you obtain the certification and skills you need to move forward in today's competitive job market. Credits earned at Forbes road count toward elective credits on a student's graduation plan. The table below summarizes the courses offered at Forbes. For additional information, visit the [Forbes Road CTC website](#).

ARCHITECTURE/CONSTRUCTION	
Building Construction Technology	Building Construction Technology students gain technical knowledge as well as practical hands-on training in the trade which includes carpentry, plumbing, electrical, masonry and blueprint reading. Individuals learn to apply technical knowledge and skills in the maintenance and repair of residential and commercial buildings.
Heating, Ventilation & Air Conditioning	The program trains students to become qualified HVAC technicians and mechanics. A major portion of the instruction focuses on how to install, diagnose, service and maintain residential and commercial control wiring of HVAC systems.
Electrical Technology	Electrical Technology prepares students for entry level electrical and electronics careers. Their technical applications include green technology instruction within this state-of-the-art electrical laboratory. Computerized training equipment is utilized to prepare the students for careers in the "high-tech" electrical field.
Landscape Design	Landscape Design prepares students to be employees of nurseries, greenhouses, florists or landscape businesses. The curriculum includes turf management, landscape design and safety, pest and disease management and irrigation. Students obtain practical skills on our 42 acre campus and in the new greenhouse.

ARTS/COMMUNICATIONS	
<i>Advertising Design</i>	The field of advertising and commercial art requires a person who possesses a wide range of creative skills. The curriculum includes the foundation for all creative/design fields. Students apply the design principles to create a variety of products and printed materials - to reach and compel the target audience to purchase products and services.
SERVICE OCCUPATIONS	
<i>Cosmetology</i>	This program builds skills for a variety of careers within the cosmetology industry. The course includes skills in hair, skin and nail care as well as salon procedures. Upon completion of the required hours, students will be eligible to take the PA State Boards.
<i>Culinary Arts</i>	The Culinary Arts course offers instruction in the commercial restaurant industry including: gourmet and fine dining, customer service, menu planning, cost-control, sanitation and hygiene. The curriculum encompasses the complete food cycle including nutrition, ordering processes, menu design and presentation skills.
<i>Early Childhood Education</i>	The course encompasses all phases of early childhood development including physical, social, emotional and intellectual. The curriculum also includes nutrition, guidance, discipline, the value of play and the science of child development.
HEALTH CAREERS/LAW ENFORCEMENT	
<i>Emergency Response Services</i>	This program is for students interested in pursuing a career, volunteer service or post-secondary education in emergency medical, law enforcement, fire or emergency management services. ERS provides training in a fully equipped lab including a fire tower and fire truck.
<i>Health Science Technology</i>	This program provides students with the hands-on training necessary to offer care to patients while working alongside other qualified health care professionals. Students will be taught basic nursing skills, Anatomy & Physiology and care of the patient with common diseases. CPR, First Aid, Bloodborne Pathogens and Direct Care Staff Worker are certifications that the students may obtain.
<i>Veterinary Sciences</i>	Veterinary Sciences prepares students to assist veterinarians during animal examinations and provide treatment and monitoring. Students will learn about maintaining medical and business records, charting and scheduling activities and a wide range of practice related duties as applied to animal health care, the biomedical field and the pet industry.
TRANSPORTATION	
<i>Auto Body Repair Technology</i>	The program provides the skills necessary to transform a wrecked vehicle into a masterpiece. Students receive instruction with state-of-the-art equipment for replacing or repairing auto body parts. Students learn to customize vehicles with painting techniques.
<i>Automotive Technology.</i>	Automotive Technology provides instruction covering a wide range of skills for the high-tech automotive industry. This includes engines, computer diagnostics, maintenance, repair and the opportunity to earn a PA State Inspection and Emissions Certification.
<i>Diesel Technology</i>	This program provides training on biodiesel, diesel, and gasoline powered medium/heavy trucks and equipment. This equipment is part of today's transportation, construction and manufacturing industries. Students can earn a PA State Inspection and Emissions Certification.

<i>Logistics & Supply Chain Management</i>	This program will actively engage students in the process of receiving, storing, shipping, controlling and distributing products. Students will use conveyors, hand trucks and carts to transport materials/supplies. They will work in the Forbes shipping and receiving department.
INFORMATION TECHNOLOGY	
<i>Computer Networking & Security</i>	This exciting technical course prepares students to design, maintain and secure today's Information Technology (IT) Systems. Network Security Specialists acting as Ethical Hackers prevent data loss from cyber-attacks protecting valuable data. Network Security Specialists are in demand in Law Enforcement, corporations and government.
<i>Multimedia Design</i>	This program allows students to be creative with design presentations for entertainment, industrial and commercial applications. This curriculum utilizes digital/video cameras and projectors in conjunction with computers. Students create animations, manipulate photographs, create presentations and web pages.