

**ALBERT GALLATIN AREA SENIOR  
HIGH SCHOOL**



**COURSE OFFERINGS  
2025-2026**

## Graduation Requirements

COURSE	CREDITS
English	4
Mathematics	4
Science	4
Social Studies	4
Arts/Humanities	2
Physical Education	1
Health	0.5
Personal Finance (Beginning with Class of 2028)	0.5
Society in the Workforce	0.5
Electives	3.5
<b>TOTAL</b>	<b>24</b>

\*Students enrolled in the CTI are required to earn 3 Science credits (in lieu of 4) and 2.5 Social Studies credits (in lieu of 4) in order to shift 2.5 required credits to the completion of the CTI program in which they are enrolled.

## SCHEDULING REFERENCE SHEET

Please note: AP Biology, CHS Chemistry, and CHS Physics are 2 period and 2 credits.

**NCAA Requirements:** Students who plan on participating in Division I, II or III college athletics are responsible for planning their academic studies in accordance with the NCAA standards. For information about these standards as well as test scores and grade point averages required by the NCAA,

<b>High School Graduation Requirements</b>			
<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
<b>(1) English</b>	<b>(1) English</b>	<b>(1) English</b>	<b>(1) English</b>
<b>(1) Mathematics</b>	<b>(1) Mathematics</b>	<b>(1) Mathematics</b>	<b>(1) Mathematics</b>
<b>(1) Science</b>	<b>(1) Science</b>	<b>(1) Science</b>	<b>(1) Science</b>
<b>(1) Social Studies</b>	<b>(1) Social Studies</b>	<b>(1) Social Studies</b>	<b>(1) Social Studies</b>
<b>(.5) Phys. Ed.</b>	<b>(.5) Phys. Ed.</b>	<b>(.5)</b>	<b>(.5)</b>
<b>(.5) Health</b>	<b>(.5) Society in the Workforce</b>	<b>(.5)</b>	<b>(.5)</b>
	<b>(.5)</b>	<b>(.5)</b>	<b>(.5)</b>
<b>(.5) Personal Finance</b>	<b>(.5)</b>	<b>(.5)</b>	<b>(.5)</b>
<b>(.5)</b>	<b>(.5)</b>	<b>(.5)</b>	<b>(.5)</b>
<b>(.5)</b>	<b>(.5)</b>	<b>(.5)</b>	<b>(.5)</b>

please check the NCAA website, [www.eligibilitycenter.org](http://www.eligibilitycenter.org). Students who wish to play for Division I, II, or III colleges must register with the NCAA by May of their junior year. College coaches cannot recruit seniors in high school until those seniors have registered with the NCAA. Students register using

<b>CAREER AND TECHNOLOGY INSTITUTE Graduation Requirements</b>			
<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
<b>(1) English</b>	<b>(1) English</b>	<b>(1) English</b>	<b>(1) English</b>
<b>(1) Mathematics</b>	<b>(1) Mathematics</b>	<b>(1) Mathematics</b>	<b>(1) Mathematics</b>
<b>(1) Science</b>	<b>(1) Science</b>	<b>(.5) Science</b> <b>(.5)</b>	<b>(.5) Science</b> <b>(.5)</b>
<b>(1) Social Studies</b>	<b>(.5) Social Studies</b> <b>(.5) Society in the Workplace</b>	<b>(.5) Social Studies</b> <b>(.5) Phys Ed</b>	<b>(.5) Social Studies</b> <b>(.5)</b>
<b>(.5) Phys. Ed.</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>
<b>(.5) Health</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>
<b>(.5) Personal Finance</b>	<b>(.5) CTI Course</b> <b>(.5) CTI Course</b>	<b>(.5) CTI Course</b> <b>(.5) CTI Course</b>	<b>(.5) CTI Course</b> <b>(.5) CTI Course</b>
<b>(.5)</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>
<b>(.5)</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>	<b>(.5) CTI Course</b>

the NCAA website referred to above. After registering online, student athletes should fill out a Transcript Request Form and submit it to the Guidance Office.

# National Collegiate Athletic Association (NCAA)

## Eligibility Standards

In order to participate in a Division I or Division II sport in college, a student must meet the minimum requirements for course courses as established by the NCAA. For information visit:

<https://www.youtube.com/watch?v=8iRU9JcPCoM>.

**NCAA Division I requires 16 core courses as of August 1, 2008.** This rule applies to any student first entering any Division I college or university on or after August 1, 2008. See the chart below for the breakdown of this 16 core-course requirement.

**NCAA Division II requires 16 core courses.** See the breakdown of core course requirements below.

### **DIVISION I 16 Core-Course Rules**

#### **16 Core Courses:**

- 4 years of English
- 3 years of mathematics (Algebra 1 or higher)
- 2 years of natural/physical science (1 year of lab if offered by high school)
- 1 year of additional English, mathematics or natural/physical science
- 2 years of social science
- 4 years of additional courses (from any area above, world language or non-doctrinal Religion/philosophy)

### **DIVISION II 16 Core-Course Rules**

#### **16 Core Courses:**

- 3 years of English
- 2 years of mathematics (Algebra 1 or higher)
- 2 years of natural/physical science (1 year of lab if offered by high school)
- 3 years of additional English, mathematics or natural/physical science
- 2 years of social science
- 4 years of additional courses (from any area above, world language or non-doctrinal Religion/philosophy)

**PLEASE NOTE:** If you are planning to participate in a Division I or Division II sport in college, please see your guidance counselor prior to scheduling your courses.

# ENGLISH

## FACULTY

Ashley Brooks

Jackie Shultz

Tina Muzina-Blevins

Kim Swaney

Jonathan Clark

Rebecca Taylor

Amanda Martin

Alison Vandegrift

Taylor Saghy

Roxanne Winkleblech

**ENGLISH 9****FULL YEAR****GRADE 9****1.0 CREDIT**

**Prerequisite:** English Grade 8.

**Description:** Through participation in General English 9, students advance their basic skills in the core areas of reading, writing, speaking, and listening. Students read and respond to a variety of fiction and nonfiction. The literature includes novels, short stories, poetry, drama, essays, and autobiographical sketches. In response to research and reading, students write complex persuasive, informational, and narrative essays. Emphasis is on supporting students in the development and improvement of critical thinking skills such as analysis, synthesis, evaluation, and creativity as they seek to understand and appreciate multiple perspectives. Through a variety of independent and cooperative learning experiences, students refine language arts skills to ready themselves for future careers.

**ACADEMIC ENGLISH 9****FULL YEAR****GRADE 9****1.0 CREDIT**

**Prerequisite:** An 85 average in the grade 8 English course.

**Description:** In Academic English 9, an advanced course for the college-bound, students refine their higher order skills in the core areas of reading, writing, speaking, and listening. Students read and respond to a variety of complex works including both fiction and nonfiction. The literature includes novels, short stories, poetry, drama, essays, and autobiographical sketches. In response to extensive research and reading, students write complex persuasive, informational, and narrative essays. Emphasis is on supporting students in the development and improvement of critical thinking skills such as analysis, synthesis, evaluation, and creativity as they seek to understand and appreciate multiple perspectives. Through a variety of independent and cooperative learning experiences, students refine language arts skills to ready themselves for college and career.

**HONORS ENGLISH 9****FULL YEAR****GRADE 9****1.0 CREDIT**

**Prerequisite:** Proficient score on the PSSA reading assessment and a 93 average in the grade 8 English course.

**Description:** To enroll in Honors English 9, the most advanced English class offered to freshmen at the high school, students must excel in English Language Arts. Students enroll in the Honors class based on teacher recommendation, and they must complete a summer reading assignment. Students participate in activities aimed at refining their advanced understanding in the core areas of reading, writing, speaking, and listening. Students read and respond to a variety of complex works including both fiction and nonfiction. The literature includes novels, short stories, poetry, drama, essays, and autobiographical sketches. In response to extensive research and reading, students write complex persuasive, informational, and narrative essays. Emphasis is on supporting students in developing and improving critical thinking skills such as analysis, synthesis, evaluation, and creativity as they seek to understand and appreciate multiple perspectives. Through a variety of independent and cooperative learning experiences, students refine language arts skills to ready themselves for college and career. Compared to the other English classes, this course will involve additional projects, readings, and writings as well as more challenging testing and a faster rate of study.

**KEYSTONE ENGLISH 10****FULL YEAR****GRADE 10****1.0 CREDIT**

**Prerequisite:** English 9

**Description:** Students concentrate on the improvement and mastery of critical reading, writing, listening and verbal expression of ideas, as well as focus on their preparation for college and career in Keystone Literature 10. Through extensive readings, students will be exposed to such literary genres as the short story, poetry, drama, novel and informational text. Students read and analyze many complex texts and apply critical thinking, comprehension, and evaluation skills and strategies to assist their understanding and appreciation of multiple perspectives. Furthermore, students will demonstrate proficiency through research-based projects, formal and informal writing assignments, and collaboration.

**ACADEMIC KEYSTONE ENGLISH 10****FULL YEAR****GRADE 10****1.0 CREDIT**

**Prerequisite:** Academic English 9 with an 85 Average or higher or 90 or above average in English 9.

**Description:** Students concentrate on the improvement and mastery of critical reading, writing, listening, and verbal expression of ideas, as well as focus on their preparation for college and career in Academic Keystone Literature 10. Through extensive readings, students are exposed to literary genres including short story, poetry, drama, novel, and informational text. Students read and analyze many complex texts and apply critical thinking, comprehension, and evaluation skills and strategies to assist their understanding and appreciation of multiple perspectives. Furthermore, students demonstrate proficiency and mastery through research-based projects, formal and informal writing assignments, communication and collaboration. Students complete independent reading and writing activities, as well as higher-level thinking and critical research-based projects.

**HONORS KEYSTONE ENGLISH 10****FULL YEAR****GRADE 10****1.0 CREDIT**

**Prerequisite:** A 90 average in Honors English 9, a 93 average in Academic English 9, a 93 average in English 9 and teacher recommendation.

**Description:** In Honors Keystone Literature 10, a course designed for the exceptional student that excels in the English Language Arts content area, students concentrate on the refinement and mastery of critical reading, writing, listening, and verbal expression of ideas. Additionally, students focus on their preparation for college and career. Through extensive readings, students will be exposed to such literary genres as the short story, poetry, drama, informational text, and several novels. Students read and analyze many complex texts, and apply critical thinking, comprehension, and evaluation skills and strategies to assist their understanding and appreciation of multiple perspectives. Furthermore, students will demonstrate proficiency through research-based projects, formal and informal writing assignments, and collaboration. Honors level students complete many rigorous independent reading and writing assignments and activities, as well as higher-level thinking and critical research-based projects. The completion of a summer assignment is required for Honors Keystone Literature 10.

**CAREER ENGLISH 11****FULL YEAR****GRADE 11****1.0 CREDIT**

**Prerequisite:** English 10.

**Description:** Career English 11 is a course designed for those making an immediate transition from high school to the workforce. Students enrolled in this course will develop and practice “soft” skills, especially those related to English language arts, to prepare them for the demands of the workplace. Source materials for exploration include the literature text, language text, novels, nonfiction texts, work manuals, newspapers, and Internet sources. Students will have opportunities to explore a variety of career fields by networking with local business representatives through both field trips and class visitations. Students will enhance their reading and writing skills through exposure and practice with technical writing, business letters, memos, emails, and reports. Students will advance their oral communications skills through formal presentations and discussions simulating those in the workplace setting. Overall, through a variety of independent and collaborative role-playing activities and project-based assessments, students will develop “soft” skills such as goal setting, productivity, team building, problem solving, flexibility, and time management.

**ACADEMIC ENGLISH 11****FULL YEAR****GRADE 11****1.0 CREDIT**

**Prerequisite:** Academic English 10 with an 85 Average or higher or 90 or above average in English 10.

**Description:** In Academic English 11, students will study pivotal works of American Literature through thorough readings of such literary genres as the short story, poetry, drama, informational text, and several novels. Students analyze seminal and foundational U.S. and world texts based on reasoning and rhetoric, as well as works of literature that reflect a variety of genres and major periods. Students will analyze and evaluate perspective in connection to purpose, audience, and task (biases) and cite strong, thorough textual evidence based on and related to the author’s implicit and explicit assumptions and beliefs through formal and informal writing assignments. Emphasis is placed on the analysis of the interaction between and development of themes or ideas over the course of a text or multiple texts. Finally, students will be expected to complete independent reading and writing activities, make strategic use of digital media, as well as complete research projects to answer various literary questions by evaluating, organizing and integrating multiple sources and complex ideas to make informed decisions on how the specifics relate to the whole.

**HONORS ENGLISH 11****FULL YEAR****GRADE 11****1.0 CREDIT**

**Prerequisite:** A Proficient score on the Keystone Literature Exam and a 90 average in Honors English 10 course, a 93 average in Academic English 10, or a 93 average in English 10 with teacher recommendation.

**Description:** In Honors English 11, a course designed for the exceptional student that excels in the English Language Arts content area, students will be exposed to pivotal works of American Literature through extensive readings of such literary genres as the short story, poetry, drama, informational text, and several novels. Students will analyze and evaluate perspective in connection to purpose, audience, and task (biases) and cite strong, thorough textual evidence based on and related to the author’s implicit and explicit assumptions and beliefs. Emphasis is placed on the analysis of the interaction between and development of themes or ideas over the course of a text or multiple texts.



<b>AP LANGUAGE AND COMPOSITION</b>	<b>FULL YEAR</b>	<b>GRADE 11</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** A 90 Average in Honors English10 or Honors English 11, or a 93 or above average in Academic English 10, and a proficient score on the Keystone Literature Exam.

**Description:** Advanced Placement English Language and Composition teaches and requires students to write in several forms (e.g., public policies, popular culture, personal experiences). Students will be expected to write essays that proceed through several stages or drafts, with revision aided by teacher and peers. Additionally, this course requires students to write in informal contexts in response to a variety of readings (e.g., imitation exercises, journal keeping, collaborative writing, and in-class responses) designed to help them become increasingly aware of themselves as writers and of the techniques employed by the writers they read. Students will learn appropriate research skills, and in particular, the ability to evaluate, use, and cite primary and secondary sources. This course assigns projects such as a researched argument paper, which goes beyond the parameters of a traditional research paper by asking students to present an argument of their own that includes the analysis and synthesis of ideas from an array of sources and cite sources using a recognized editorial style (e.g., Modern Language Association).

<b>CAREER ENGLISH 12</b>	<b>FULL YEAR</b>	<b>GRADE 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Career English 11

**Description:** In Career English 12, students will examine personal strengths and goals to help identify multiple potential career paths for themselves as well as refine their pathways to their careers. Advancing the workplace language arts skills and “soft” skills developed in Career English 11, students will apply these skills to real-world situations within their potential career fields. Through exploration of various source materials including the literature text, language text, novels, nonfiction texts, work manuals, newspapers, and internet sources, students will continue to explore the technical side of English. Students will promote effective writing skills through essays in which they analyze and synthesize source materials related to specific job fields of interest as well as creating personal documents such as resumes and job applications. Students will polish their oral communication skills as they network with local business contacts in their chosen career field and participate in activities simulating workplace scenarios such as team meetings and job interviews. As a result of the self-reflection along with a variety of independent and collaborative projects and assessments, students who participate in this course will have a more seamless and effective transition to the workplace.

<b>ACADEMIC ENGLISH 12</b>	<b>FULL YEAR</b>	<b>GRADE 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Academic English 11 with an 85 average or higher or 90 or above average in Career English 11.

**Description:** This course is designed for the student intending to pursue post-secondary education of any kind with emphasis on analysis and formal writing. Students will explore the breadth of styles and themes from British literature while helping each student to sharpen his/her own reading analyses and writing skills. The course includes the chronological history of British literature from ancient to modern texts, including epic poetry, lyric poetry, philosophical exposition, plays, the short story, the novel, and non-fiction. Students will also craft various informal and formal writings including literary analysis.

**HONORS ENGLISH 12****FULL YEAR****GRADE 12****1.0 CREDIT**

**Prerequisite:** A proficient score on the Keystone Literature Exam and a 90 average in Honors English 11 course, a 93 average in Academic English 11 or a 93 average in Career English 11 with teacher recommendation.

**Description:** This course is designed for the student who intends to pursue post-secondary education of any kind with emphasis on analysis and formal writing and who is talented in reading comprehension.

Students will explore the breadth of styles and themes from British literature while helping each student to sharpen his/her own reading analyses and writing skills. The course includes the chronological history of British literature from ancient to modern texts, including epic poetry, lyric poetry, philosophical exposition, plays, the short story, the novel, and non-fiction. Students will also craft various informal and formal writings including literary analysis. This course moves at a faster pace than Academic English 12, requires a summer reading assignment, and requires more independent reading outside of school.

**AP ENGLISH LITERATURE & COMPOSITION    FULL YEAR    GRADE 12    1.0 CREDIT**

**Prerequisite:** An 85 average AP English Language & Composition, a 90 average in Honors English 11, or a 93 or above average in Academic English 11, and a proficient score on the Keystone Literature Exam.

**Description:** Advanced Placement English Literature and Composition includes an intensive study of representative works such as those by authors cited in the AP English Course Description. The choice of works for the AP course is made by the school in relation to the school's overall English curriculum sequence, so that by the time the student completes AP English Literature and Composition she or he will have studied during high school literature from both British and American writers, as well as works written in several genres from the sixteenth century to contemporary times. The works selected for the course require careful, deliberative reading that yields multiple meanings. Student will learn to write an interpretation of a piece of literature that is based on a careful observation of textual details, considering the work's structure, style, and themes, the social and historical values it reflects, and such elements as figurative language, imagery, symbolism, and tone. Students will be expected to frequently write and rewrite formal, extended analyses and timed, in-class responses such as:

1. Writing to understand: Informal, exploratory writing activities that enable students to discover what they think in the process of writing about their reading (such assignments could include annotation, freewriting, keeping a reading journal, and response/reaction papers).
2. Writing to explain: Expository, analytical essays in which students draw upon textual details to develop an extended explanation/interpretation of the meanings of a literary text.
3. Writing to evaluate: Analytical, argumentative essays in which students draw upon textual details to make and explain judgments about a work's artistry and quality, and its social and cultural values.

<b><u>DEVELOPMENTAL READING</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 9</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Any student scoring basic or below basic on the 8th grade Reading portion of the PSSA test may be considered for this course.

**Description:** Students practice comprehension, fluency, word attack, vocabulary, spelling and writing skills. Students use diagnostic software to practice and track progress in those six areas as well as track independent reading growth. Students focus on analysis of reading and writing grounded in evidence from text. Students analyze how the author unfolds a series of events, including the order in which the points are made, how they are introduced and developed, as well as connections made between them. Students acquire and use with independence academic as well as domain specific words at the college and career readiness level. Students develop fluency through the use of repeated readings and Readers' Theater plays.

## **ELECTIVES**

<b><u>CHS CREATIVE WRITING</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** English 10 with an average of 80% or higher.

**Description:** In this class, students will learn the fundamentals of writing poetry, short stories, drama, and literary nonfiction. In addition, students will participate in students' work critiques. Upon completion of this course, students will be familiar with the tools needed to create fictional and poetic forms of writing. Students will understand plotting and outlining, characterization, creating realistic dialogue, how to use active language, show as well as tell, understand and develop their voices, how to use setting, mood and sensory language, how to create an effective hook, back-story, suspense, climactic scenes and effectual denouement, and how to polish and revise their finished work. Students will have the opportunity to earn three credits through Seton Hill University (SEL 153 Introduction to Creative Writing).

<b><u>FUNDAMENTALS OF ACTING</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** None

**Description:** The focus of this course will be beginner acting skills. Students are introduced to basic acting tools and personal discipline through the study of improvisation, scene work, individual monologues, period-style pieces, and dialect workshops. Students will also have directing opportunities. In this course, students are critiqued and guided toward the successful completion of scenes/monologues with an emphasis on process not product. This course offers students the opportunity to utilize their creative talents for the betterment of their future public speaking skills. Additionally, the rehearsal process encourages constant self-reflection and a growth mindset. By the end of the course, students will demonstrate command of the conventions of Standard English grammar and usage when speaking and produce multiple interpretations of a scene and evaluate how each version conveys a different message to the audience.

**HUMANITIES FUSION: ART HISTORY & LITERATURE**  
**GRADE 11, 12                      0.5 CREDIT**

**SEMESTER**

**Prerequisite:** Academic English 10 or Honors English 10

**Description:** This course is designed for college-bound students that excel in ELA and have an interest in the fusion of art, history, and literature. This course examines how art and literature are intertwined and their impact on culture. The course looks at the time period and historical context in which the art and literature were created focusing on how the political and social climate of the time period impacted the production of both the art and literature. As students read various selections of literature, as well as study specific art and art movements, they learn about art and literature movements concurrently, as well as in succession. In addition, the students will study the life of the artists and authors and how personal experiences shaped their contributions to the humanities. Students will hone their critical thinking skills while crafting analytical essays, drawing connections from specific pieces of artwork and literature studied in the course, as well as from other resources gathered from student research. Students will write both formally and informally citing sources (MLA style) as necessary

**CHS MASS COMMUNICATION & SOCIETY                      YEAR                      GRADE 11, 12                      1.0 CREDIT**

**Prerequisite:** 85 average or better in Academic English 10 or higher

**Description:** This course offers students an engaging and comprehensive exploration of the cultural, technological, and economic history of the media from newspapers to the Internet, the changing relationships between media industries, audiences, and cultures, and the theoretical underpinnings of mass communication research. Designed for college bound students in grades eleven and twelve, this course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of Mass Communication and its relationship with society. Through a combination of lectures, discussions, hands-on activities, and projects, students will delve into key concepts, theories, and methodologies relevant to mass media throughout history. Students will have the opportunity to earn three credits (COMMRC 0320 Mass Communication and Society) through the University of Pittsburgh College in High School Program.

# MATHEMATICS

## FACULTY

Brandon Berkshire

Charles Shimshock

Dave Diamond

Thomas Colebank

Joyce Umble

Dylan Rush

AnneMarie Koss

Julia Pillar

Mark Schuessler

Stephen Sokol

**ALGEBRA I Block****FULL YEAR****GRADE 9****2.0 CREDITS****Prerequisite:** Math 8

**Description:** Students in Algebra I Block master the fundamentals of Algebra I in a double period to prepare them for the Keystone Algebra I exam. Units of study include operations and properties of real numbers and expressions, solving linear equations and inequalities, relations, functions and their graphs, percent of change and an introduction to data analysis and probability. Students graph linear equations and inequalities, solve systems of linear equations and inequalities, simplify and perform operations with polynomials, and study measures of dispersion and compound probability. Students learn the essential skills for success in today's world, such as critical thinking, problem solving, communication and collaboration. A scientific calculator is required.

**ALGEBRA II****FULL YEAR****GRADE 9, 10, 11****1.0 CREDIT****Prerequisite:** Successful completion of Algebra I Block.

**Description:** Students in Algebra II continue to build their algebra skills as they work with linear, quadratic, and exponential functions while they extend their repertoire to include polynomial, rational, and radical functions. Students work closely with expressions that define the functions and continue to expand their abilities to model situations and to solve equations. They solve quadratic equations over the sets of real and complex numbers and solve exponential equations using the properties of logarithms. Students apply the Fundamental Counting Principle as they determine probabilities of simple and compound events and analyze arithmetic and geometric sequences. Students in Algebra II experience mathematics as a coherent, useful and logical subject that uses their ability to make sense of problem situations both in the math classroom and in the real world.

**VOCATIONAL MATH CONCEPTS****FULL YEAR****GRADE 10, 11****1.0 CREDIT****Prerequisite:** Successful completion of Algebra I Block.

**Description:** This course is designed to provide the skills necessary to be productive in a vocational setting. Students will gain conceptual understanding of Algebra and Geometry in a relationship vocational career. Students will be given the opportunity to enhance their math understanding as it relates to vocational careers. Topics will be covered that are needed in their studies at the vocational school and in their future employment.

**GEOMETRY****FULL YEAR****GRADE 10, 11, 12****1.0 CREDIT****Prerequisite:** Successful completion of Algebra II.

**Description:** Students formalize, deepen and extend their algebraic skills in order to solve problems in Geometry. Abstract mathematical concepts as well as real-world problem situations are explored. Units of study include the building blocks of Geometry, congruence and proof, classifications of triangles and quadrilaterals, similarity in polygons, right triangles and trigonometry, and circles. Additionally, students explore both two- and three-dimensional figures in terms of their areas, surface areas and volume.

<b><u>PRE-CALCULUS/TRIG</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Average of 85 or higher in Algebra II and Geometry.

**Description:** Pre-Calculus with Trigonometry is a college prep course that is designed to equip the college bound student with the algebraic and trigonometric skills needed to succeed in either Calculus or CHS Calculus. Topics covered include Relations, Functions and Graphs, Trigonometry, Advanced Functions and Graphing, and Discrete Mathematics, which includes Probability and Statistics. Emphasis is placed on doing trigonometric problems with and without a calculator. A graphing calculator is recommended.

<b><u>CHS PRE-CALCULUS/TRIG</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** A student must have a 90 or above in Geometry or Geometry 10.

**Description:** This course weaves together previous study of algebra, geometry and mathematical functions into a preparatory course for Calculus. This course covers a study of elementary functions, their graphs and applications including polynomial, rational, algebraic, exponential, logarithmic and trigonometric functions. Students will have the opportunity of earning 4 credits (SMA 120 Precalculus) through the Seton Hill University College in High School Program.

<b><u>CALCULUS</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:**

- Successful Completion of Pre-Calculus/Trig .
- Successful completion of Summer Assignment.

**Description:** This course is designed for the student who will need to take Calculus for their college major, such as Engineering, Mathematics, and Medical Fields. The course includes a review of Pre-Calculus Mathematics (functions, graphing techniques, and algebra). Topics covered include Functions, Limits, Differentiation Techniques and Applications (such as Velocity, Acceleration, Business, Economics, and Science), Curve Sketching and Optimization problems, Integration Techniques and Applications, Logarithmic and Exponential Functions.

<b><u>CHS ANALYTIC GEOMETRY &amp; CALCULUS I</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisites:**

- An average of 90 or higher in Pre-Calculus.
- Students are expected to have strong Algebra and Trigonometry skills. A passing score set by the University of Pittsburgh on the ALEKS placement exam is required in order to register for the CHS credits for this course. Deadlines and scoring requirements will be announced prior to the end of this school year. Students will need to pay a tuition fee to be eligible for Pitt credit.
- Successful completion of Summer Assignment.

**Description:** This course is the standard first course in a basic calculus sequence required for all mathematics, science, engineering, and statistics students. Topics covered in this course include functions and graphs, limits, derivatives, application of the derivative, integrals, application of the

integral, and parametric functions. Students will have the opportunity to earn 4 credits (MATH 0220) through the University of Pittsburgh College in High School Program.

<b><u>FINANCIAL LITERACY</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** A student must have successfully completed Algebra I.

**Description:** Students in Financial Literacy develop an understanding and competent awareness of young adult and life choices that involve mathematics. Students learn various income structures, purchasing a used vehicle, checking account transactions and maintenance, leasing an apartment, filing taxes, credit and credit card management, distinguishing between good and bad debt, purchasing a new vehicle, mortgaging a house, and investments through stocks and CD's. Students experience a variety of activities in this course including guest speakers, real-life projects, homework assignments, quizzes, tests, and online investigations.

<b><u>PROBABILITY AND STATISTICS</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** A student must be a senior and have successfully completed Algebra II and Geometry with a final average of 85 or higher.

**Description:** Students in Probability and Statistics develop the basic tools of probability theory and statistical analysis. Students will cover topics in both descriptive and inferential statistics. Units of study primarily focus on developing and interpreting various graphs with given data, frequency distributions, summarizing data, counting methods using permutations and combinations, axiomatic probability and statistical inference. Statistical inference topics include applied sampling, estimation, hypothesis testing, correlation, regression analysis and analysis of variance. Students learn important real-world skills such as critical thinking, analyzing, interpreting and communication using the results of statistical analysis. A scientific calculator is required.

<b><u>CHS STATISTICS</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** A student must have a 90 or above in Pre-Calculus/Trig.

**Description:** In this course, students will use elementary statistics to achieve statistical literacy. This course is designed to develop quantitative literacy, enabling students to produce, understand and communicate statistical information. This course explores descriptive and inferential statistics that include parametric (Z, t, F) and non-parametric (chi-square) probability distributions. The ability to make recommendations based upon interpretation of statistical software output is also emphasized. Students will have the opportunity of earning 3 credits (SSS 250 Introductory Statistics) through the Seton Hill University College in High School Program.



# SOCIAL STUDIES

## FACULTY

Charles Courie

Les Everly

Eric Kurosky

Jeff Kopas

Matthew Stackhouse

Michael Long

Christy Wolfe

**US/HISTORY INDUSTRIAL REVOLUTION-1945 FULL YEAR      GRADE 9      1.0 CREDIT**

**Description:** This course focuses on student exploration of U.S. History through political, economic, social, and cultural themes spanning the expansion of American industry to the cold war era. Students will focus on developing critical analysis skills through challenging reading and writing assignments. They will also complete activities including, but not limited to, guided reading activities, writing assignments, a presentation, and small group projects.

**WORLD HISTORY & CULTURE      FULL YEAR      GRADE 10      1.0 CREDIT**

**Prerequisite:** US/ History Industrial Revolution-1945.

**Description:** This course is designed to provide students with an understanding of the past, an awareness of the present and decision-making skills to prepare for the future. Issues of war, religion, gender, politics and how they related to the important events of the past will be examined. Particular attention will be given to diversity and multiculturalism.

**HONORS WORLD HISTORY & CULTURE      FULL YEAR      GRADE 10      1.0 CREDIT**

**Prerequisite:** A student must have a 93 or above in their US/History Industrial Revolution-1945 class.

**Description:** Students will examine a timetable beginning with the Renaissance through the present day. This course will require students to go into more depth than the academic World History course including more rigorous readings, homework, and examinations. Issues of war, religion, gender, politics, and how they are related to the important events of the past will be examined. Particular attention will be given to diversity and multiculturalism. This course will use a variety of strategies including critical thinking, compare and contrast, web quests, and analyzing primary sources. Less time is spent on review and more time will be spent on in-depth historical content. Students should be highly motivated and have an above average interest in social studies.

**AMERICAN GOVERNMENT      FULL YEAR      GRADE 11      1.0 CREDIT**

**Prerequisite:** World Culture/History.

**Description:** This course is a full year study of the structures, processes and issues of national, state and local government. This course studies the Constitution, Congress, Presidency, Supreme Court, political parties, and civil rights while giving emphasis to the responsibilities and rights of citizens and the knowledge appropriate for wise decision making.

**HONORS AMERICAN GOVERNMENT      FULL YEAR      GRADE 11      1.0 CREDIT**

**Prerequisite:** A student must have a 90 or above in Honors World History/Culture or a 93 or above in World History.

**Description:** This course is a full year study of the structures, processes and issues of national, state and local government. This course studies the Constitution, Congress, Presidency, Supreme Court, political parties and civil rights while giving emphasis to the responsibilities and rights of citizens, the knowledge appropriate for wise decision making and the skills necessary for critical thinking. The honors level course requires students to utilize higher order thinking skills such as analysis and

synthesis, while completing more rigorous assignments and in-class projects. Students will develop advanced skills such as formulating their own ideas about government, advanced written expression, and self-directed primary source readings. Students should be highly skilled in reading, writing, speaking, and should be very motivated to engage in higher level thinking.

<b>MODERN AMERICAN HISTORY</b>	<b>FULL YEAR</b>	<b>GRADE 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** 3.0 Social Studies Credits.

**Description:** This course in modern American History will use a chronological cause and effect approach to the political, economic, military and social history of the United States from the end of World War II to the present day. The course focuses on the decisions, events, and people that shaped our nation's history from the latter half of the 20th century through our present day. Modern American History addresses the need for inclusion of contemporary American history into the Social Studies curriculum. Students will have the ability to broaden their knowledge of American History and to understand the implications on their lives.

<b>PRINCIPLES OF DEMOCRACY</b>	<b>FULL YEAR</b>	<b>GRADE 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** American Government - World Culture.

**Description:** The first semester will give the students a comprehensive study of the basic institutions, concepts, principles, and practices of economics. Instruction covers basic economic concepts that regulate the United States market system and its operations. This course will also promote informed consumer decision making. The students will be able to make appropriate and well-informed decisions about earning money, saving, investing and spending, make an analysis of the American Free Enterprise, and instruction on the international dimensions of economics and the "global" economy. The second semester provides students with practical information and problem-solving opportunities that develop students the knowledge and skills necessary for survival in our legal society. A variety of case studies, role-plays, small group exercises, and visual analysis activities are utilized. This portion is beneficial for all students whether they aspire to work in some phase of the judicial system, or hope to be well-informed citizens in their community.

<b>HONORS PRINCIPLES OF DEMOCRACY</b>	<b>FULL YEAR</b>	<b>GRADE 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** A student must have a 90 or above average in Honors American Government or a 93 or above in American Government.

**Description:** In this advanced course, students will focus on the principles of law and economics. Students should be highly motivated and skilled in the following areas: reading, writing, and speaking. Students should be eager to engage in higher level thinking. In the first semester, students will analyze economic concepts, how markets work and their structures, business and labor organizations, economic challenges, and international trade. Finally, students will conduct research projects, demonstrations, collaborative projects and simple experiments to help reinforce concepts. The honors level course requires students to analyze current national and international economic systems, create scenarios that represent consumer decision making, evaluate the American Free Enterprise, and complete assigned in-class projects. In the second semester, students will master the history of written law and related topics such as criminal law and tort law. The honors level course requires students to analyze the use of law through case studies, debates, and assigned in-class projects. Students will

utilize higher order thinking skills to provide analysis and evaluation of past and current legal issues. Students will develop advanced skills such as formulating their own ideas about the legal system, analytical written expression in the form of critiques of court cases and written law as it exists today, and self-directed case study evaluations.

<b>CHS UNITED STATES HISTORY</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Student must have a 90 or above in Honors World History or Honors American Government plus Teacher Recommendations.

**Description:** This demanding course is designed to provide a college-level experience. The course introduces students to major themes in American history such as democracy and economic growth. Also covers historical analysis, document analysis, research methods, and a variety of social studies disciplines as they are used in history. The course will provide a foundational understanding of the United States, exploring its development from pre-colonial times to the present. Students will examine key events, figures, developments, and societal changes that have shaped the nation. Students will have the opportunity of earning 3 credits (SHY 103 Introduction to American History) through the Seton Hill University College in High School Program.

## **ELECTIVES**

<b>PSYCHOLOGY I</b>	<b>SEMESTER</b>	<b>GRADE 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** A student must have an 80 or above in the previous year's Social Studies class.

**Description:** This course focuses on the study of human behavior and how it pertains to understanding a complete range of human experiences. Topics discussed include the psychological disorders, memory and the human thought process, sleep function and restoration, feelings and emotions, personality, and the history of psychology's greatest founding fathers and achievements. Regular activities and formal assignments related to group discussion and collaboration, presentations, written projects and cumulative logs serve to reinforce course concepts.

<b>PSYCHOLOGY II</b>	<b>SEMESTER</b>	<b>GRADE 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** A student must have an 80 or above in Psychology I.

**Description:** This course builds on the knowledge gained from Psychology I. The main focus of this course is on human development from infancy to adulthood. Students will also be focusing on social interactions, intelligence, motivation and emotions. Through class discussions, projects and written expression, students will develop a solid foundation of developmental and social psychology. The goal of this course is to enable students to deal more fully with their own lives. Students should gain an understanding into their own development and build a basis for effective living.

**HISTORY OF AMERICAN SPORTS   SEMESTER   GRADE 10, 11, 12   0.5 CREDIT**

**Prerequisite:** None

**Description:** This course will examine and interpret American sports from the colonial era to the present, placing attention on the role of sports in American life and how changes in American life have affected sports. This is a course in American social and cultural history exploring issues such as race, class, gender, foreign policy, nationalism, religion, economics, industrialization, and urbanization as they relate to sports. Class will be devoted to lectures and discussions. Reading the required texts is imperative for success.

# SCIENCE

## FACULTY

James Comunale

Michael Revak

Amanda Kinneer

Megan Smiley

Alex Mears

Jesse Vihlidal

Elizabeth Mulac

Bethany Witt

Alison Perry

<b><u>ENVIRONMENTAL LIFE SCIENCE/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 9</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Successful Completion of Science 8.

**Description:** Environmental life science students learn basic concepts including methods of science, basic biochemistry, microbiology, ecology, populations, basic earth science and evolution. This course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Students are assessed using the concepts and competencies from the PA Keystone Biology Exam.

<b><u>HONORS BIOLOGY/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 9</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Proficient score on the PSSA Science assessment and a 93 average in 8th Grade Science course.

**Description:** Honors Biology students learn concepts including methods of science, biochemistry, microbiology, cell energetics, cell division, homeostasis, genetics, ecology, populations, and evolution. Students explore concepts and themes associated with living organisms, structure and function, inheritance, and changes in living forms over time. Students are challenged to think critically, solve problems, and know that biology is an essential addition to their general education. Students are assessed using the concepts and competencies from the PA Keystone Biology Exam.

<b><u>KEYSTONE BIOLOGY/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 10</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Successful Completion of Environmental Life Science/Lab.

**Description:** Biology students learn concepts including methods of science, biochemistry, microbiology, cellular structure and function, bioenergetics, homeostasis, transport, genetics, cell growth, and cell division. Students explore concepts and themes associated with living organisms, structure and function, inheritance, and changes in living forms over time. Students are challenged to think critically, solve problems, and know that biology is an essential addition to their general education. Students are assessed using the concepts and competencies from the PA Keystone Biology Exam.

<b><u>ACADEMIC KEYSTONE BIOLOGY/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 10</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** An 85 average in Environmental Life Science/Lab.

**Description:** Biology students learn concepts including methods of science, biochemistry, microbiology, cellular structure and function, bioenergetics, homeostasis, transport, genetics, cell growth, and cell division. Students explore concepts and themes associated with living organisms, structure and function, inheritance, and changes in living forms over time. Students are challenged to think critically, solve problems, and know that biology is an essential addition to their general education. Students are assessed using the concepts and competencies from the PA Keystone Biology Exam.

<b>CHEMISTRY/LAB</b>	<b>FULL YEAR/SEMESTER</b>	<b>GRADE 11</b>	<b>1.0/0.5 CREDIT</b>
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**Prerequisite:** Successful Completion of Biology.

**Description:** Chemistry is an introductory level course that will cover topics including the organization and classification of matter, atomic theory, the periodic table of elements, naming, writing formulas, and building molecules of chemical compounds, and principles of chemical reactions. This course also focuses on essential lab skills such as measuring and calculating.

<b>ACADEMIC CHEMISTRY /LAB FULL YEAR</b>	<b>GRADE 10, 11</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** An 85 average in Biology and successful completion of Algebra.

**Description:** The central theme of the course is the basic principle that properties of matter are a consequence of the structure of matter. Topics include Measuring and Calculating, The Mole Concept, Structure of Matter, Chemical Reactions, Periodicity of Elements, and Gases and the Mole. Throughout the course, students are introduced to societal and environmental issues involving science or scientific personnel. Chemical theories and concepts combined with quantitative problems make the program challenging. The aim of the course is to enable students to develop a better understanding of their physical world. Students will perform quantitative and qualitative laboratory experiments. In class, a major aim is to develop a systematic approach to problem solving.

<b>HONORS CHEMISTRY/LAB</b>	<b>FULL YEAR</b>	<b>GRADE 10, 11</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** A Proficient score on the Biology Keystone assessment and an average of 90 in Honors Keystone Biology or an Average of 93 in Biology and successful completion in Algebra.

**Description:** Honors Chemistry is a year-long course that introduces the fundamental language, ideas, and tools used in the study of chemistry. This advanced introductory high school chemistry course covers key topics such as the structure and properties of matter, measurements and calculations, the periodic table, chemical bonding, nomenclature, chemical reactions, stoichiometry, solutions, and common laboratory practices. Emphasis will be placed on the use of chemistry in the real world and our daily lives. Honors Chemistry will give students the skills necessary to describe chemical processes and behaviors and to solve numerical and verbal problems in chemistry. Upon completion, students will have a solid foundation in chemistry and will be prepared for AP Chemistry and college-level chemistry courses.

<b>PHYSICS/LAB</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Successful Completion of Biology and Chemistry.

**Description:** Students will be introduced to a problem-solving approach geared to producing an understanding of the physical laws and processes governing the universe as related not only to physics but to other sciences as well. Use of mathematical skills in solving word problems will be emphasized. Laboratory sessions are an integral part of the course. A scientific or graphing calculator is required.



<b><u>HONORS PHYSICS/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Proficient score on the Biology Keystone assessment and an average of 90 in Honors Chemistry or an Average of 93 in Chemistry and Geometry.

**Description:** Students will be introduced to a problem-solving approach geared to a possible career in Science, Mathematics, or Engineering. The physical laws and processes governing the universe will be covered with a strong emphasis on Mechanics. Students will solve word problems with concepts from Algebra II, Geometry, and Trigonometry, as well as, performing laboratory experiments as an integral part of the course. A scientific or graphing calculator is required.

<b><u>ANATOMY/PHYSIOLOGY/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Successful completion of Biology and Chemistry.

**Description:** A lecture and laboratory course in the anatomy and physiology of the human body. This course covers the fundamental and principle concepts of human anatomy and physiology and microbiology. Topics include an introduction to the structure and function of cells, tissues, and human organ systems, and an overview of microbiology, epidemiology, and control of microorganisms. Laboratory study enhanced via microscope study of tissues, preserved specimens and anatomic models, the use of interactive computer models, cat dissection, and other various organisms; to relate structure to function.

<b><u>PHYSICAL SCIENCE</u></b>	<b><u>FULL YEAR/SEMESTER</u></b>	<b><u>GRADE 12</u></b>	<b><u>1.0/0.5 CREDIT</u></b>
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**Prerequisite:** Successful Completion of 2 Science Credits and Algebra I.

**Description:** This course integrates mathematics as a problem-solving approach geared towards topics in the areas of chemistry and physics. Concepts such as the advanced study of matter and energy, Newton's laws of motion, forces and energy, wave motion and energy, heat and temperature, electricity and magnetism, and communication technology will be covered throughout the course.

<b><u>CHS PHYSICS/LAB</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 12</u></b>	<b><u>2.0 CREDIT</u></b>
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**Prerequisite:** Proficient score on the Biology Keystone assessment and a 90 or above average in Physics, Biology and Chemistry.

**Description:** Students considering advance studies in Science or Engineering with a strong mathematical background are encouraged to choose this course. Some concepts covered in CHS Physics are similar to those in Physics/Lab but follow the University of Pittsburgh Physics 0174 curriculum, including Calculus. New areas such as Fluid Dynamics, Thermodynamics, Wave Motion, Electricity, Magnetism, Relativity Theory, and AC Circuits will also be explored. A scientific or graphing calculator is required. It is required that the student takes the four exams (one per nine weeks) from the University of Pittsburgh. Students will have the opportunity to earn 4 credits (PHYS 0174)) through the University of Pittsburgh College in High School Program.

<b>AP BIOLOGY/LAB</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>2.0 CREDIT</b>
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**Prerequisite:** Proficient score on the Biology Keystone assessment and an average of 90 or above in Biology and Chemistry.

**Description:** The Advanced Placement Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. It will include those topics regularly contained in a high-quality college program in introductory biology. The aim of the course is to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. It is required that the student take the Advanced Placement Exam during the second week of May.

<b>CHS CHEMISTRY/LAB</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>2.0 CREDIT</b>
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**Prerequisite:** Proficient score on the Biology Keystone assessment and an average of 90 or above in Chemistry, Biology, and Geometry. This course must be taken after or concurrently with a Physics course.

**Description:** This is the first half of a two-term introduction to general chemistry. Topics include atomic theory, molarity, gases and kinetic theory, thermochemistry, electronic structure and the periodic table, relationships between phases, ionic solutions and acid/base theories, redox reactions, carbon chemistry, rates of reactions, chemical equilibria, and thermodynamics. This course requires laboratory sessions and exams on the University of Pittsburgh campus. Students will have the opportunity to earn 4 credits (CHEM 0110) through the University of Pittsburgh College in High School Program.

<b>CHS APPLIED ANATOMY/PHYSIOLOGY/LAB</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** 90 average in Biology and Chemistry. Proficient score on Keystone Biology Exam.

**Description:** This course provides a background in human anatomy and physiology with an emphasis being placed on the skeletal, muscular, cardiovascular, respiratory, and nervous systems. Laboratory activities will explore gross anatomy through the use of bones, muscle, heart and lung models, along with creating drawings and models to learn AOIs and blood flow. Students will also work with spirometers to explore beating mechanisms and heart models for circulation. Laboratory study enhanced via microscope study of tissues, preserved specimens and anatomic models, cat dissection, and other various organisms; to relate structure to function. Students will have the opportunity of earning 4 credits (SHL 110 Applied Human Anatomy & Physiology) through the Seton Hill University College in High School Program.

<b>CHS PREP FOR COLLEGE BIOLOGY/LAB</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Successful completion of Biology and Chemistry

**Description:** The goal of this course is to provide students with a foundation in biology. This course focuses on a subset of major topics covered in the University of Pittsburgh courses Foundations of Biology I and II, including a review of chemistry as it applies to biology, the structure and function of macromolecules, the basic structure of cells, energy and cellular respiration, introduction to genetics

and molecular biology, and development. While these topics are covered in regular high school biology courses, Preparation for Biology delves deeper and applies chemistry concepts to achieve a more complete understanding of biology. This course is intended for college bound high school students working to obtain a degree outside of the biological sciences (non-science majors) and will count towards their required Natural Sciences credits. Students will have the opportunity to earn three credits (BIOSC 0100 Preparation for Biology) through the University of Pittsburgh College in High School Program.

## **ELECTIVES**

### **CHS INTRO TO HUMAN NUTRITION      FULL YEAR      GRADE 11, 12      1.0 CREDIT**

**Prerequisite:** 85 average in Biology and Chemistry

**Description:** This course will cover an overview of the scientific principles of nutrition and their applications to humans throughout the lifecycle. Topics include classification and function of the six major nutrients, review of current nutrition standards, safety of the food supply, and nutrition misinformation. Students will have the opportunity to earn three credits (NUTR 1006 Introduction to Human Nutrition) through the University of Pittsburgh College in High School Program.

### **FORENSIC SCIENCE      SEMESTER      GRADE 11, 12      0.5 CREDIT**

**Prerequisite:** At least an 80% average in Chemistry, Biology, and Geometry.

**Description:** This course will cover topics that would be used in the forensic science field. The topics covered would be applied in crime scene situations and involve a final project where all skills learned will be applied. The topics covered would include but are not limited to: Hand writing analysis, foot print analysis, finger print analysis, powder analysis, questioning techniques, evidence collections methods, preparation of a crime scene, gunshot residue, blood splatter analysis, analyze trials/cases, learn to use evidence in court, physiological angles to crimes as well as physical, in depth knowledge about career options in this field as well as college programs. Required Materials: Scientific Calculator version TI83 or higher.

### **ZOOLOGY/LAB      SEMESTER      GRADE 11, 12      0.5 CREDIT**

**Prerequisite:** Average of 85 in Biology and Chemistry.

**Description:** This course discusses the branch of biology that deals with animals and animal life, including the study of the structure, physiology, development, and classification of animals, invertebrates, including sponges, flatworms, mollusks, insects, arthropods, and echinoderms, and vertebrates, including fish, amphibians, reptiles, birds, and mammals. Students should be prepared to complete homework, as well as projects, quizzes, tests, and laboratory activities concerning these topics. A high level of understanding in problem solving and the scientific method is necessary for success in this course.

**SCIENCE DESIGN****SEMESTER****GRADE 9,10,11,12****0.5 CREDIT**

**Prerequisite:** none

**Description:** The Science Design course offers students a distinct learning opportunity by emphasizing the application of research through integrated projects and products that utilize the scientific design method for prototype development. In this course students will design products and processes that can improve the lives of individuals and communities, both locally and globally. Students will identify patterns in data and use results to make predictions. Students will showcase their health improvement creations at an end-of-course competition through Design to Make a Difference (D2MD, dtmd.org). This student-centered course is structured to highlight the creativity and design aspects associated with STEAM learning, and it will focus on teamwork, including the end-of-course showcase project. 3D printers will be utilized for creation and rapid prototyping.

**BIOTECHNOLOGY****SEMESTER****GRADE 11,12****0.5 CREDIT**

**Prerequisite:** An 80% average in Biology

**Description:** Biotechnology offers the students an opportunity to experience the basics of microbiology, human genetics, biotechnology, and exploration of bioethical issues, as well as the history and applications of DNA/RNA technology, molecular biology, and laboratory safe practices. This course includes career exploration designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of biotechnology. Students attain knowledge about the field of biotechnology and a deeper understanding of the biological concepts used. In addition, students develop the laboratory, critical thinking, and communication skills currently used in the industry. Furthermore, students will explore and evaluate career opportunities in the field of biotechnology through extensive readings, laboratory experiments, class discussions, research projects and guest speakers. The objectives covered in this course are both academic and technical.

**CONSERVATION BIOLOGY****SEMESTER****GRADE 10, 11, 12****0.5 CREDIT**

**Prerequisite:** Environmental Life Science

**Description:** The Conservation Biology course offers students an engaging and comprehensive exploration of Aquatic Ecology, Forestry, Soils and Land Use, and Wildlife. We will explore these topics using hands-on techniques for students to relate these topics to their interests and the environment they live in. Designed for students who have completed a Biology course and are in grade 10-12, this course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of the four areas listed above. As an extension, there will also be a yearly variable topic area that relates to current events in the world with a connection to Conservation Biology. These can include topics such as water conservation, global warming, or renewable energy. Through a combination of lectures, discussions, guest speakers, hands-on activities, and projects students will delve into key concepts, theories, and methodologies relevant to Aquatics, Forestry, Soils, and Wildlife.

# ELECTIVES REQUIRED BY THE END OF GRADE 12

## FACULTY

George Franks

Timothy Dye

Thomas Corazzi

Karla Lent

Matthew Stackhouse

<b><u>PHYSICAL EDUCATION</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 9, 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Description:** The students will learn a variety of activities that can be used after graduation. These activities are designed to improve a student's physical skills and endurance. To pass the course each year, the student must dress and participate in each class. Points will be deducted from a student's grade each time he/she does not dress or participate.

**General Physical Education**

This course is offered to 9th and 10th grade students only and is the only physical education option available for freshmen and sophomores. Students will learn various fundamentals and rules of a variety of lifestyle sports, team sports, weight training and aerobic activities. Students will be required to perform a pre- and post- fitness assessment.

**Co-Ed Weight Training**

This course is offered to 11th-12th grade students only. This course is designed for students to learn proper lifting techniques, spotting methods, weight room safety and workout routines. Activities will include, but are not limited to, a multitude of lifts utilizing free weights and machine weights, as well as an emphasis on conditioning and fitness.

**Co-Ed Team Sports/Lifetime Leisure Activities**

This course is offered to 10th-11th-12th grade students only. Students will learn a variety of rules, skills, fundamentals and strategies in multiple team activities. Safety and sportsmanship will be emphasized. Activities include but are not limited to: basketball, volleyball, flag football, soccer, softball, kick ball and whiffle ball.

Students will learn a variety of rules, skills, fundamentals and strategies in a variety of individual and dual sport activities. Safety and sportsmanship will be emphasized. Activities include, but are not limited to: golf, bowling, bean bag toss, shuffle board, badminton, pickle ball, table tennis and other individual and dual sports.

<b><u>HEALTH</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 9, 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Description:** This course will consist of in-depth studies of Living a Healthy Life and Building Health Skills. The three components of the Health Triangle (Physical, Mental/Emotional, and Social) will be covered. Included in this course is the study of Sexually Transmitted Diseases and Acquired Immune Deficiency Syndrome.

<b><u>SOCIETY IN THE WORKFORCE</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Description:** This course is a comprehensive course to prepare students for life in the professional world. This class will offer students the opportunity to create a professional resume, learn how to apply to jobs, how to interact on the job with people of different backgrounds. Along with the aforementioned opportunities, students will also be discussing on the job behaviors and best practices, how to resign from a job, how to understand their paychecks along with filing and understanding their taxes. This course is not limited to only the items on this list as the content will be at the discretion of the teacher in collaboration with the students when the want and need is present.

**PERSONAL FINANCE**

**SEMESTER**

**GRADE 9**

**0.5 CREDIT**

**Description:** Personal Finance course offers students an engaging and comprehensive exploration of various business, personal finance, income, spending, saving and investing, risk and insurance, and credit topics. Designed for 9th grade students, this course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of personal finance. Through a combination of lectures, discussions, hands-on activities, and projects, students will delve into key concepts, theories, and methodologies relevant to personal finance.

# WORLD LANGUAGES ELECTIVES

## FACULTY

Craig Neighbors

Tina Muzina-Blevins

Alison Vandegrift



<b>SPANISH I</b>	<b>FULL YEAR</b>	<b>GRADE 9, 10, 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Obtained a Proficient score on the PSSA 8th Grade Reading Assessment.

**Description:** A communicative approach to the basic elements of the language including listening, speaking, reading, writing and culture. Emphasis is on a "top down" or "whole language" approach to language instruction through which students manipulate language to communicate thoughts by using higher level skills before attending to discrete language structures with the use of lower level skills. Students will have ample opportunity to participate in meaningful, authentic communicative situations.

<b>SPANISH II</b>	<b>FULL YEAR</b>	<b>GRADE 10, 11, 12</b>	<b>1.0 CREDIT</b>
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Prerequisite: Spanish I with an average of 80 or above.

**Description:** The primary goal of Spanish II is to have students continue to develop proficiency in the five basic skills: listening, speaking, reading, writing and cultural awareness. Students must not only learn the structures of the Spanish language but also, apply what they have learned in real life situations. The emphasis is on communication while increasing the students' awareness, knowledge, and appreciation of the Spanish language.

<b>SPANISH III</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Spanish II with an average of 80 or above.

**Description:** The goal of Spanish III is to emphasize competency and provide comprehensive practice in listening, speaking, reading writing, and cultural awareness. The students will be developing communicative competency by using the language in practical, everyday situations, thus gaining, a basic, usable grasp of the language.

The emphasis is on real life situations in which students interact in Spanish. Students will participate in two or more pair and/or group activities. These activities gradually increase in sophistication, beginning with lists of questions that two students ask each other, then moving first to situational dilemmas and eventually to open-ended descriptions.

<b>GERMAN I</b>	<b>FULL YEAR</b>	<b>GRADE 9, 10, 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** Obtained a Proficient score on the PSSA 8th Grade Reading Assessment.

**Description:** A communicative approach to the basic elements of the German language including listening, speaking, reading, writing and culture. Emphasis on a "top down" or "whole language" approach to language instruction through which students manipulate language to communicate thoughts by using higher level skills before attending to discrete language structures with the use of lower level skills. Students will have ample opportunity to participate in meaningful, authentic communicative situations.

<b>GERMAN II</b>	<b>FULL YEAR</b>	<b>GRADE 10, 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** German I with an average of 80 or above.

**Description:** The primary goal of German II is to have students continue to develop proficiency in the four basic skills: listening, speaking, reading, and writing. Students must not only learn the structures of the German language but also apply what they have learned in real life situations. The emphasis is on communication while increasing the students' awareness, knowledge, and appreciation of the German language.

<b>GERMAN III</b>	<b>FULL YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** German II with an average of 80 or above.

**Description:** The goal of German III is to emphasize competency and provide comprehensive practice in listening, speaking, reading, writing, and cultural awareness. The students will be developing communicative competency by using the language in practical, everyday situations, thus gaining, a basic, usable grasp of the language.

The emphasis is on real life situations in which students interact in German. Students will participate in two or more pair and/or group activities. These activities gradually increase in sophistication, beginning with lists of questions that two students ask each other, then moving first to situational dilemmas and eventually to open-ended descriptions.

# TECHNOLOGY EDUCATION ELECTIVES

FACULTY

Jonathan Clark

Dave Diamond

Jeff Rush

<b><u>MATERIAL TECHNOLOGY I</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 9, 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** none

**Description:** This semester class will introduce students to material fabrication and machine operation. The utilization of power and hand tools is used to create a project from start to finish. This course is oriented toward careers in cabinetry and carpentry. A small fee will be charged for project materials.

<b><u>MATERIAL TECHNOLOGY II</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 9, 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** Successful Completion of Materials I

**Description:** This course is a continuation of Material Technology I focusing on further development of skills and accuracy of hand and machine use. Emphasis will be on accurate development of joinery in a variety of projects. This course advances the skills needed for careers in cabinetry and carpentry. A small fee will be charged for project materials.

<b><u>INTRODUCTION TO LASER ENGRAVING</u></b>	<b><u>GRADE 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** none

**Description:** This course offers an introduction to laser engraving and cutting with a hands-on experience. Students will need to have basic computer knowledge and will need to be able to use programs such as Photoshop and RDWorksV8. This course is designed for students in grades 10, 11, and 12, this course aims to develop students' critical thinking skills, design creativity, and deepen their understanding of lasers react to various materials such as wood, acrylic, and metal.

<b><u>PORTALS – Project Perennial</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** none

**Description:** The purpose of this course is to provide students with an opportunity to join an ongoing multi-district community project whose mission is to preserve local historical landmarks in 3D space. Students will be given scans of various points of interest with the task of rebuilding, down to the minute details, the structures within Unreal Engine 5. Those models than can be used for a variety of projects such as: creating interactive environments via VR technology, providing engineers with incredibly accurate layouts of historical landmarks, historical preservation efforts. Students will be expected to occasionally tour the locale being scanned to gain first-hand knowledge of the layouts before proceeding to create the virtual models in the 3D Engine. The end goal of this course is for students to become familiar with our area's local history, culture, and engineering.

<b><u>3D DESIGN</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 9, 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** none

**Description:** This course will provide students who are interested in 3D Design and Engineering with a chance to learn the fundamentals of 3D Modeling, Animation, Rendering and Post-Processing. Generally, the course content will be split across two popular 3D Design programs; SketchUp and

Blender. *This course is intended as a Prerequisite for students interested in the Portals (Perennial Project) as 3D Modeling will greatly aid the student with working with Unreal Engine in that course.*

Starting with an exploration of SketchUp and Blender's various applications, students will gain a comprehensive understanding of the software's uses. Through hands-on learning, participants will delve into 3D modeling techniques and explore various aspects of digital art creation, including animation, texturing, and rendering.

<b>INTRO TO DIGITAL GAME DESIGN</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** none

**Description:** This course will focus on learning about esports – the community, the education, the technology, networking opportunities, leadership in the industry, and entrepreneurial skills. Beginning with the history of Esports, this course will provide students with a detailed understanding of the evolution of the Esports industry. Students will learn about Esports and the industry's career opportunities. There will also be a greater and more in-depth understanding of all the other aspects of Esports including media production, entrepreneurship, and event organizing.

This course will also focus on:

- Problem-solving skills
- Ability to work in a team
- Strong work ethic
- Communication skills (written & verbal)
- Initiative
- Detail-oriented
- Technical skills
- Flexibility/adaptability
- Interpersonal skills (relates well to others)
- Leadership

<b>INTRODUCTION TO ENGINEERING DESIGN</b>	<b>FULL YEAR</b>
<b>GRADE 9, 10, 11, 12</b>	<b>1.0 CREDIT</b>

**Description:** Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work.

<b>CIVIL ENGINEERING AND ARCHITECTURE</b>	<b>FULL YEAR</b>
<b>GRADE 10, 11, 12</b>	<b>1.0 CREDIT</b>

**Description:** Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software.

# FINE ARTS ELECTIVES

## FACULTY

Natalie Messich

Ken Musko

Kristen Venturino

<b>ART I</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** none

**Description:** This art course is designed for students to develop an appreciation for art, to increase basic skills with a variety of media, and instill a confidence in their ability, which will encourage them to further explore other art experience. Activities will focus on the elements and principles of art as well as Art History. Students will discover the many facets of Art through use of different mediums such as pencil, colored pencil, sharpie, pastel, watercolor, acrylics, printmaking, and more.

<b>ART II</b>	<b>SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** Art I with an average of 80 or above.

**Description:** This is a basic Fine Arts course, which may include the following: Drawing (pencil, colored pencil, pastels, pen), Painting (tempura, acrylic, watercolor), Printmaking (stencil, linoleum block), and basic sculpture. Primarily two-dimensional projects and occasional three-dimensional ones will be included. Emphasis will be on creative design, composition and technical skill.

<b>ADVANCED DRAWING</b>	<b>SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Description:** This course is for High School Visual Arts Core Curriculum. Drawing focuses on black and white or monochromatic rendering from life, pictures, masterworks, and imagination. With an emphasis on studio production, this course is designed to develop high-level thinking, art-related technology skill, art criticism, art history, and aesthetics.

<b>CERAMICS/SCULPTURE I</b>	<b>SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** Art I with an average of 80 or above.

**Description:** This is a hand-building ceramic class with emphasis using pinch, coil, and slab building methods. The Ceramic I students will become familiar with the decorative techniques to finish a piece. This will include under glazing and glazing and their unique differences. Eight pieces will be required to finish this course.

<b>CERAMICS/SCULPTURE II</b>	<b>SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** Ceramics I with an average of 80 or above.

**Description:** This course will be an expansion of Ceramics I and the student enlisting in this class will have fulfilled the requirements from Ceramics I. The students in Ceramics II will develop further knowledge of ceramic hand-building techniques, assume responsibility for self-directed activities, explore their imagination within scope of the assignments and apply the correct vocabulary during the creation of each piece. The student will explore/experiment with different glazing techniques. Four to five pieces will be required to finish this course.

<b><u>PHOTOGRAPHY</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 10, 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Description:** This course will cover the basic principles of Digital Photography including the following: Gaining a better understanding of digital photography as well as Adobe Photoshop and its tools and usage. Students will learn to edit and work with photos to make them the best composition possible. Students will work with colorsplash, cut out tools, color correction, opacity in photos, clone tool along with many other tools in Photoshop. Students will learn the definitions of terms used in the world of digital photography. This is an entry level course that can correlate and prepare them for a digital photography course in college.

<b><u>TECHNOLOGY &amp; DESIGN PRODUCTION</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 10,11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** Successful Completion of Photography.

**Description:** Studio course in screen printing with emphasis on digital printing and photo emulsion process. Students are exposed to a range of techniques and concepts and are encouraged to investigate personal motivations while making multiple color prints. T-shirts will be the main product of this course.

<b><u>METALS/JEWELRY</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisite:** Art 1

**Description:** This course will introduce the techniques and design aspects in metal and jewelry making. This course will provide an opportunity for the students to learn a different skill set in Fine Art along with providing a skill in metal and jewelry making.

<b><u>CHS ADVANCED 2-D DESIGN</u></b>	<b><u>FULL YEAR</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>1.0 CREDIT</u></b>
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**Prerequisite:** Art I

**Description:** The Advanced 2-D Design CHS course offers students an engaging and comprehensive exploration of 2D Art and Design. Designed for Juniors and Seniors, this course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of 2-D Art and Design. Through a combination of lectures, discussions, hands-on activities, and Art projects, students will delve into key concepts, theories, and methodologies relevant to 2-D Art and Design. Students will have the opportunity of earning 3 credits (SAR 120 2-D Design) through the Seton Hill University College in High School Program.

<b><u>CHS CERAMICS/SCULPTURE</u></b>	<b><u>SEMESTER</u></b>	<b><u>GRADE 11, 12</u></b>	<b><u>0.5 CREDIT</u></b>
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**Prerequisites:** Ceramics I average of an 85%

**Description:** This course offers students an engaging and comprehensive exploration of working with clay through advanced techniques. Designed for 11<sup>th</sup>-12<sup>th</sup> grade students. This course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of Ceramics. Through a combination of lectures, discussions, hands-on activities, and projects, students will delve into key concepts, theories, and methodologies relevant to working with clay as the focal medium. Students will



have the opportunity of earning 3 credits (SAR 225 Clay) through the Seton Hill University College in High School Program.

**CHS INTRODUCTION TO WORLD ART    SEMESTER    GRADE 11, 12    0.5 CREDIT**

**Prerequisites:** Completion of Art I or Ceramics I

**Description:** This course introduces students to art from around the world. It examines particular paintings, sculptural works and architectural sites that are considered by many to be "masterpieces." Students will study ritual practices, performance, religious objects, cultural artifacts, sacred sites, memorials, and other diverse forms of creative expression, most of which will be unfamiliar. Students will learn the cultural, political, and historical role that an art object played in its original context. The course will cover human history and art produced around the world. This course encourages students to think more broadly and inquisitively about the meaning of "art" and its meaning and cultural use. Students will have the opportunity to earn three credits (HAA 0010 Introduction to World Art) through the University of Pittsburgh College in High School Program.

**VINYL DESIGN                      SEMESTER                      GRADE 10, 11, 12                      0.5 CREDIT**

**Prerequisite:** Art I

**Description:** This course is designed for students to develop an understanding of visual communication and community engagement through graphic design and commercial vinyl sign making. Through a hands-on approach, students will expand on earlier learned design skills pivoting around the elements and principles of design. Students will explore computer layout fundamentals, vinyl printing and utilization of the design process. Projects will include basic graphic design, digital print media, and vinyl graphics applications. The application of these techniques will allow each student to become a part of the media footprint for the Albert Gallatin Area School District. Students will complete projects while developing their skills that meet the needs of our school. An interest in technology and a willingness to take creative risks are attributes that will lead to success in this class. Complete projects will be used by various departments, clubs and organizations throughout our school and community.

# MUSIC ELECTIVES

## FACULTY

Gail Diamond

Charles Durso

<b>PIANO</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Description:** Students will learn to play the piano (keyboard). A method for adult learners is used to teach students the basic skills needed to become proficient at reading music and playing the instrument. Students are required to show continued progress in the class while working at an individual pace. Grades are determined by weekly individual assessments. Students will perform for their peers on a weekly basis. Students will also listen to their classmates perform and critique those performances, listening for accuracy and making suggestions for corrections.

<b>GUITAR</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Description:** The class is designed to help students develop knowledge in guitar, including but not limited to performing, guitar history, culture, various styles and genres of music, theory, and technique. This class will build and enhance the playing levels and proficiency of students. Students will learn to read individual notes, chords, tabs, and scales. The class is limited to 12 with preference given to upper-class students.

<b>ELECTRONIC MUSIC &amp; RECORDING</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisites:** No prior experience is required. However, a basic understanding of music theory or instrumental performance is helpful but not mandatory.

**Description:** The Electronic Music and Recording course offers students an engaging and comprehensive exploration of the principles, techniques, and creative possibilities of music production and recording technology. Designed for high school students interested in music and sound design, this course aims to develop students' technical skills, foster creativity, and deepen their understanding of audio production, composition, and recording. Through a combination of lectures, discussions, hands-on activities, and projects, students will delve into key concepts, theories, and methodologies relevant to electronic music and studio recording.

<b>BAND</b>	<b>FULL YEAR</b>	<b>GRADE 9, 10, 11, 12</b>	<b>1.0 CREDIT</b>
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**Description:** The student must show an interest in instrumental music and perform as a member of the band. Grading is by attendance with several performances throughout the school year. The student must attend all rehearsals and performances. Performances include; parades, concerts, pep rallies and football games.

1. Students must attend band camp (held before school starts in the summer) in order to enroll in band.
2. Drumline is by audition only due to a limited number of positions.
3. Band auxiliary is by auditions held in the Spring of the previous school year.
4. A limited number of school instruments are available for student's use. See the band director for more specific information.

<b>CHS BAND</b>	<b>FULL YEAR</b>	<b>GRADE 12</b>	<b>1.0 CREDIT</b>
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**Prerequisite:** 2 years of High School Band or equivalent musical experience

**Description:** The CHS Band course offers students an engaging and comprehensive exploration of instrumental music at an advanced level. Designed for 11th and 12th-grade students seeking college credit, this course aims to refine musicianship, develop critical listening and analytical skills, and provide leadership opportunities in music education. Through a combination of ensemble rehearsals, solo performances, listening assignments, and mentorship experiences, students will deepen their understanding of instrumental technique, music theory, and performance practices. Students will have the opportunity of earning 1 credit (SMU 182 Griffin Band) through the Seton Hill University College in High School Program.

<b>JAZZ ENSEMBLE</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** Completion of Middle school band program or equivalent skill.

**Description:** The Jazz Ensemble course offers students an engaging and comprehensive exploration of Jazz, Rock, Blues, and Fusion. Designed for Students in grades 9-12, this course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of music performance, appreciation and understanding through Jazz music. Through a combination of lectures, discussions, hands-on activities, and projects, students will delve into key concepts, theories, and methodologies relevant to 20<sup>th</sup> and 21<sup>st</sup> century Jazz music. This course is open to students grade 9-12 who are interested in a more focused approach in the study of Jazz music. Students in Jazz Ensemble will learn scales and chord shapes for improvisation and will study the harmonic, melodic and stylistic conventions of Jazz music. Students will perform music by celebrated jazz legends and learn the historical context of their musical contributions. Students will perform in concerts throughout the year.

<b>CHS JAZZ ENSEMBLE</b>	<b>SEMESTER</b>	<b>GRADE 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** 2 years of High School Band or equivalent musical experience

**Description:** The CHS Jazz Ensemble course offers students an in-depth exploration of jazz performance, history, and improvisation at an advanced level. Designed for 11th and 12th-grade students seeking college credit, this course aims to refine jazz musicianship, develop critical listening and analytical skills, and foster a deep understanding of jazz as an art form. Through ensemble rehearsals, solo improvisation, listening assignments, and a comprehensive jazz history research project, students will enhance their skills as performers and scholars of jazz. Students will have the opportunity of earning 1 credit (SMU 178 Jazz Combo) through the Seton Hill University College in High School Program.

<b>CHORUS</b>	<b>FULL YEAR/SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>1.0/0.5 CREDIT</b>
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**Description:** Chorus is open to all young men and women who have the desire to sing; no audition required. Daily rehearsals include: 1. Warm-ups that focus on healthy vocal technique 2. Sight-reading techniques 3. Singing choral arrangements that vary in style, genre, and language. The ability to read music and sing on pitch are preferred but not required. Students enrolled are required to perform at

several events throughout the academic year. Grades are determined by: 1. Daily attendance and participation. 2. Individual growth as a singer. 3. Attendance at required performances.

<b>CHOIR</b>	<b>FULL YEAR/SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>1.0/0.5 CREDIT</b>
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**Prerequisite:** Audition with instructor prior to class admission

**Description:** Choir is the advanced choral ensemble at AGHS. Students should have previous choral experience and basic musicianship skills. Students enrolled in Choir will perform advanced choral repertoire which varies in style, genre, and language; students will also learn advanced vocal techniques.

Grades are determined by daily attendance and participation, individual growth as a singer, and attendance at required performances. An audition with the instructor is required prior to admission.

<b>CHS CHOIR</b>	<b>FULL YEAR/SEMESTER</b>	<b>GRADE 11, 12</b>	<b>1.0/0.5 CREDIT</b>
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**Prerequisite:** Audition required

**Description:** The CHS Choir course offers students an in-depth exploration of choral singing, vocal technique, and musical interpretation at an advanced level. Designed for 11th and 12th-grade students seeking college credit, this course aims to refine vocal musicianship, develop critical listening and analytical skills, and foster a deep understanding of choral music across various styles and time periods. Through ensemble rehearsals, solo opportunities, listening assignments, and a comprehensive choral music research project, students will enhance their skills as performers and scholars of vocal music. Students will have the opportunity of earning 1 credit (SMU 185 or SMU 188) through the Seton Hill University College in High School Program.

<b>INTRODUCTION TO MUSIC THEORY</b>	<b>SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Description:** This course will offer students an understanding of the inner workings of music. Students will explore the concepts that drive written music in a variety of genres, and learn the skills required to create music of their own. Students will also develop their skills as music listeners through ear training and aural dictation. The skills and knowledge gained in this course will benefit any musician at any level. The curriculum for this course will draw from 'The Alfreds Essentials of Music Theory' workbook.

<b>CHS MUSIC THEORY</b>	<b>SEMESTER</b>	<b>GRADE 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** 2 years participation in a music ensemble (Band/Choir) or equivalent.

**Description:** The CHS Music Theory course provides students with an in-depth study of the fundamental and advanced concepts of music theory. Designed for 11th and 12th-grade students seeking college credit, this course aims to develop students' analytical, aural, and compositional skills while deepening their understanding of music structure and function. Through lectures, ear training exercises, composition projects, and score analysis, students will engage with the theoretical foundations that underpin Western music and beyond. Students will have the opportunity of earning 1 credit (SMU 127 Fundamentals of Music Theory) through the Seton Hill University College in High School Program.

# MISCELLANEOUS ELECTIVES

## FACULTY

Richard Cassem

Alexander Lashendock

Kimberly Hellen

Taylor Saghy

AnneMarie Koss

Megan Smiley

<b>FOODS</b>	<b>SEMESTER</b>	<b>GRADE 9, 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** none

**Description:** This course offers students an engaging and comprehensive exploration of food preparation, cooking techniques, food shopping/budgeting and nutrition principles. This course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of food preparation and nutrition. Through a combination of lectures, discussions, hands-on activities, and projects, students will delve into key concepts, theories, and methodologies relevant to food preparation, nutrition, budgeting and food choices. An exploration of the use of technology and how it affects our food, budget and nutrition choices will also be investigated. Students may have the opportunity to earn OSHA certification.

<b>SMALL BUSINESS STARTUP</b>	<b>SEMESTER</b>	<b>GRADE 10, 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** The student must have successfully completed Algebra I; application process required.

**Description:** The Small Business Startup course offers students an engaging and comprehensive exploration of entrepreneurship concepts, leading to starting a small business. Designed for 10th through 12th graders with an interest in business, this course aims to develop students' critical thinking skills, foster creativity, and deepen their understanding of business types, licensing needed for various industries, funding options, and business plans. Through a combination of lectures, discussions, hands-on activities, projects, and guest speakers, students will delve into key concepts, theories, and methodologies relevant to launching a small business; taking their own ideas and seeing them come to fruition. Students in this class will also be responsible for the daily operations of the Colonials Coffee shop and student area (potentially to be developed) in the Library, as well as AG merch sales, marketing, etc.

<b>CHS RIGHT START TO COLLEGE 1</b>	<b>SEMESTER</b>	<b>GRADE 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** It is encouraged to take simultaneously with Academic/Honors/AP/CHS course(s)

**Description:** Right Start to College 1 is designed to prepare students for their first year in college. This class helps students anticipate what life as a college student will be like. The class covers topics such as organization, planning and time management, note-taking strategies, test-taking strategies, short-term and long-term goal setting, professional communication with professors and for networking for jobs, adjusting to living college life, along with ways to manage and cope with stress. This class will also help students explore what kind of person and student they are through a variety of projects and topics of discussion. Students may earn 1 college credit through the successful completion of in-class assignments and in-class projects. Students will have the opportunity to earn 1 credit (ARTSC 0111) through the University of Pittsburgh College in High School Program.

<b>CHS RIGHT START TO COLLEGE 2</b>	<b>SEMESTER</b>	<b>GRADE 11, 12</b>	<b>0.5 CREDIT</b>
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**Prerequisite:** It is encouraged to take simultaneously with Academic/Honors/AP/CHS course(s)

**Description:** Right Start to College 2 is designed to prepare students for life after high school and life after college. The class covers topics such as major/career exploration and career planning, creating a budget to address college expenses, the financial aid process, interview preparation for your first job out of college, networking strategies, and help with college applications and scholarship essays. Students may earn 1 college credit through the successful completion of in-class assignments and in-class projects. Students will have the opportunity to earn 1 credit (ARTSC 0112) through the University of Pittsburgh College in High School Program.

<b>CHS FOUNDATIONS OF TEACHING</b>	<b>YEAR</b>	<b>GRADE 11, 12</b>	<b>1.0 CREDIT</b>
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**Prerequisites:** Strong interest in the field of Education and 80 average in previous English course

**Description:** This course is designed for college-bound students interested in pursuing a career in the field of education. This course covers information about disability and the principles and practice of special education. Students will be introduced to six general areas of content: 1) historical and legal context; 2) families; 3) disability characteristics; 4) school issues and processes; 5) inclusion; and 6) equity. Much of the course material is first person learning experiences, allowing students to learn from individuals with disabilities and their families. Evaluation will take place in the form of first-person learning responses, case studies, photo journal, field experience narrative or book review, and exams. As an introductory course, students will acquire foundational knowledge of topics relating to special education. Students will have the opportunity to earn three credits (TLL 1580 Foundations of Special Education) through the University of Pittsburgh College in High School Program.

<b>APPLIED COMMUNICATIONS (YEARBOOK)</b>	<b>FULL YEAR/SEMESTER</b>
<b>GRADE 9, 10, 11, 12</b>	<b>1.0/0.5 ELECTIVE CREDIT</b>

**Prerequisite:** None

**Description:** Students learn the journalistic and technical skills needed to craft and publish the 170-200-page yearbook (The Colonial), using industry standard software and hardware. The course is a product-driven business with consumers, deadlines, finance, and a hierarchical organization with student managers. Students should apply if they have strong writing skills, are deadline oriented, detail-minded, and organized, and enjoy working with others, including shared responsibilities, good customer service, and effective interviewing.

**ARMY JROTC – LET 1 FULL YEAR /SEMESTER GRADE 9, 10, 11, 12 1.0 /0.5 CREDIT**

**Prerequisites:** None

Note: Semester class for LET 1 is only offered first semester.

**Description:** Leadership Education and Training (LET 1). JROTC is designed to teach high school students the value of citizenship, leadership, personal responsibility, and a sense of accomplishment, while instilling in them self-esteem, teamwork, and self-discipline. This course is open to all freshmen and first-year cadets regardless of academic level. This is the introductory course for the JROTC Program. This curriculum prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. Meanwhile, the program is a stimulus for promoting graduation from high school, while providing instruction and rewarding opportunities that benefit the student, community, and nation. The primary mission of



JROTC is "To motivate young people to be better citizens." Students will study leadership theory and application, foundation for success, communication/study skills, citizenship, military customs and courtesies, physical training, drill, map reading, and the history and objective of JROTC.

Extracurricular activities available: Drill Team, Exhibition Drill Team, Marksmanship Team, Raider Team, Orienteering Team, Academic Team, Leadership Team, Saber Team, and Color Guard.

**ARMY JROTC – LET 2    FULL YEAR /SEMESTER GRADE 10, 11, 12    1.0 / 0.5 CREDIT**

**Prerequisites:** ARMY JROTC - LET 1.

**Description:** Leadership Education and Training (LET 2). This is the second course for the JROTC Program. The purpose of this course is to enhance the basic skills that students learned in LET 1 and to help motivate them to become better citizens and leaders. Leadership skills are emphasized in all instructional areas of the JROTC program. Students are placed in leadership roles that enable them to demonstrate an understanding of basic leadership principles, values and attributes. Leadership Education and Training (LET) 2 enhances individual skills, followership, team work and citizenship while further developing and promoting leadership skills.

Study of wellness, fitness and first aid, drug awareness, ethical values and principals of good citizenship in American history and government. Demonstrate knowledge of drill, map reading and physical training, with emphasis on methods of instruction. Extracurricular activities available: Member of Battalion Staff, Drill Team, Exhibition Drill Team, Marksmanship Team, Raider Team, Orienteering Team, Academic Team, Leadership Team, Saber Team, and Color Guard.

**ARMY JROTC – LET 3    FULL YEAR /SEMESTER GRADE 11, 12    1.0 / 0.5 CREDIT**

**Prerequisites:** ARMY JROTC – LET 2.

**Description:** Leadership Education and Training (LET 3). This is the third course for the JROTC Program. This course involves the student more as a leader, teacher and mentor within the battalion. This course further enhances the skills that students learned in LET 1 and LET 2. This course of instruction emphasizes the cadet as a problem solver, planner and leader. Basic command and staff principles are introduced to provide an overview of organizational roles and responsibilities. Leadership strategies, managing conflict, leading others, planning and communications skills are evaluated to improve organizational effectiveness. Leadership Education and Training (LET) 3 enhances individual skills, followership, team work and citizenship while further developing and promoting leadership skills.

Study of leadership strategies, foundation of success, managing conflict, career planning, financial planning, citizenship in American history and government with continued practical work in leadership, drill, technology awareness, and methods of instruction, map reading and physical training. Extracurricular activities available: Member of Battalion Staff, Drill Team, Exhibition Drill Team, Marksmanship Team, Raider Team, Orienteering Team, Academic Team, Leadership Team, Saber Team, and Color Guard.

**ARMY JROTC – LET 4    FULL YEAR /SEMESTER    GRADE 12    1.0 / 0.5 CREDIT**

**Prerequisites:** ARMY JROTC – LET 3.

**Description:** Leadership Education and Training (LET 4). This is the fourth course for the JROTC Program. Cadets in this course will have the responsibilities of a leader, role model, mentor, and teacher within the battalion. These students must be able to apply their previously acquired knowledge of techniques of communication, leadership skills and general military bearing to a level that they can adequately execute their duties and responsibilities as an assistant to the instructor. These students are afforded a unique opportunity to improve their leadership abilities/skills, mentoring skills, and problem-solving capabilities through an in-depth study of leadership and citizenship. This entire course of instruction emphasizes the cadet's ability to perform as a problem solver, mentor, teacher and most importantly, the ability to perform as a leader in all aspects of the program.

Study service to the Nation and financial planning, with continued practical work in drill, technology awareness, career planning, physical training and command and staff principles. Extracurricular activities available: Member of Battalion Staff, Drill Team, Exhibition Drill Team, Marksmanship Team, Raider Team, Orienteering Team, Saber Team, and Color Guard.

# EDUCATION OF EXCEPTIONAL CHILDREN

## FACULTY

Nicole Williams

Nicole Lubawski

Katie Patek

Kathleen Jose

Ashtin Primus

Elissa Christopher

Karen Pegg

Genna Naymick

Eva Mehalov

Sheri Dunham

Beth Hines

Michelle Dougherty

### **COURSE TITLE: Learning Support, Emotional Support, and Life Skills Support Programs.**

Description: Resource rooms are provided for students identified as having a learning disability or those experiencing emotional distress.

Special education teachers instruct students in specific subject areas.

The student's Individual Education Program determines class placement. Students are identified for these programs through a formal psychological testing process. Placement decisions are reviewed on a regular basis through the MDT re-evaluation procedure.

# ALBERT GALLATIN AREA SCHOOL DISTRICT COURSES OFFERED AT FAYETTE COUNTY AREA CAREER & TECHNICAL INSTITUTE SCHOOL

## PROGRAMS (3.5 CREDITS/YEAR)

*Grades 10-12 unless otherwise noted*

### CONSTRUCTION PROGRAMS

#### **BUILDING CONSTRUCTION TRADES**



Skilled building construction professionals must have a general knowledge of many disciplines. Students are given the fundamentals of related carpentry, math, and blueprint reading, which is the basis for all construction trades. Students are also given adequate training on a variety of construction tools and machinery. A thorough knowledge of hand and power tools is necessary. Personal safety and overall job safety are stressed continually throughout the program. Prospective students should like to work with their hands and have a desire to work in many of the construction areas. [CIP 46.9999]

*Certifications: Fork Lift Operator, NCCER Credentials (various trades), OSHA Certification, Pennsylvania Builders Association Skills Certificate, S/P2 - Construction*

#### **ELECTRICAL CONSTRUCTION**



From layout and assembly to installation, testing and maintenance of power systems, this program takes a broad-based training approach to preparing students for employment in the electrical industry. Through hands-on training and classroom instruction, students learn the electrical trade practices used in residential, commercial and industrial fields in accordance with the National Electrical Code.

Specialty areas including the installation of high voltage lines and electrical distribution systems are also covered. Prospective students should possess the ability to read and interpret technical data, manual dexterity, and the ability to work with a great deal of accuracy and precision. [CIP 46.0399]

*Certifications: Articulated Ladder, Fork Lift Operator, Mobile Ladder, NCCER Credentials (various trades), OSHA Certification, Pennsylvania Builders Association Skills Certificate, S/P2 – Construction, Single and Extension Ladder, Step Ladder*

## **HEATING, VENTILATION & AIR- CONDITIONING / CLEAN ENERGY**



Skilled HVAC Technicians are in great demand in today's busy building world. Students receiving training at the Fayette County Career & Technical Institute will have a solid entry level base for beginning a career in the HVAC industry. Emphasis on installation, service of residential, commercial, and industrial HVAC equipment will be attained. Also in today's energy efficient buildings it is necessary to maintain a high level of indoor air quality. These techniques will also be learned and practiced. [CIP 47.0201]

*Certification: EPA 608 Certification, Fork Lift Operator, NCCER Credentials (various trades), OSHA Certification, OSHA Certification - Construction*

## **MASONRY**



Students in the Masonry Program receive instruction in four different areas of the trade. Brick/block laying, stonework, cement finishing, and tile setting make up the curriculum. Students learn from the ground up, both commercial and residential construction techniques and methods. Many aspects of masonry are covered including: Layout work, pouring footings, and various types of concrete finishes. Students learn the methodology of many types of masonry walls including, but not limited to brick, concrete block, stone and architectural tile in residential and commercial applications. Tile setting includes layout, materials, and mortars for walls and floors. [CIP 46.0101]

*Certification: Fork Lift Operator, NCCER Credentials (various trades), OSHA Certification, Pennsylvania Builders, Association Skills Certificate, S/P2 – Construction, Single and Extension Ladder, Step Ladder*

## **SERVICE PROGRAMS**

### **AGRICULTURE**



Students learn the anatomy, physiology and well-being of farm animals and companion animals-breeds. This course will incorporate plants, greenhouse, soil science and Ag mechanization as well as plant cultivation and soil conservation. Instruction may also include Aquaculture and Hydroponics. Additionally, Students will learn the basic mechanics and maintenance of agricultural equipment. Prospective students should possess a strong desire to work outdoors, physical strength, stamina, and the ability to work with limited supervision. [CIP 01.0301]

*Certification: Heartsaver First Aid CPR AED, National Safe Tractor and Machinery Operator, OSHA Certification – Agriculture, Pennsylvania Beef Quality Assurance Certification*

### **BARBER**



This course is an instructional program of 1250 hours that prepares individuals to apply technical knowledge and skills related to experiences in a variety of applications. The student will learn permanent waves, color, haircuts, shaves, massages (facial only) and shampooing. Additionally, a student will be taught that state barber laws, rules, regulations, barber ethics, sterilization and sanitation, and skin and scalp diseases. Upon completion of the class, the student will be eligible to take the Pennsylvania State Barber Exam. [CIP 12.0402]

*Certification: Barber License, Barbicide, OSHA 10*

## **COSMETOLOGY**

Our comprehensive program provides you with the tools to become a licensed professional. This specialized curriculum consists of 1,250 hours of instructions required by the Pennsylvania State Board of Cosmetology. Students learn the latest techniques in the care and treatment of hair, skin, and nails. They practice and perfect their skills on mannequins, then advance to performing hair and skin care services on actual customers. The program also offers instruction in salon operation. Prospective students should possess creativity, artistic ability, manual dexterity, physical stamina and good communication skills. [CIP 12.0401]

*Certification: Barbicide, Cosmetologist, Cosmetology Teacher, OSHA Certification, S/P2 - Cosmetology*

## **CULINARY ARTS**



There are many career opportunities waiting for you in the ever-growing food service industry. Through classroom theory and hands-on experiences in our fully equipped commercial kitchen and dining room, you'll gain the skills and knowledge needed to be successful in this fast-paced, highly demanding field. Students learn the basics of food preparation used in most restaurants, banquet facilities, caterers and institutions. Advanced instruction covers specialty and gourmet cooking, menu planning, purchasing, and management. Potential students should possess the ability to work under pressure, physical stamina, and strong organizational and math skills.

[CIP 12.0508]

*Certifications: Heartsaver CPR, OSHA Certification, S/P2 – Culinary, ServeSafe Allergen Management, ServSafe/Manager Food Safety certification*

## **EARLY CHILDHOOD EDUCATION**



The Early Childhood Teacher Education program prepares students to work with young children in a variety of settings that require an understanding of how children grow, learn, and develop. Students in the program will interact with preschool children ages 3-5 in FCCTI's childcare center and have other experiences at local preschools. Along with studying how young children learn, students also practice teaching techniques that prepares them for any type of teaching career. Students in the Early Childhood Teacher Education program can earn the Child Development Associate credential (CDA), which is the national industry certification. This credential can lead to employment or transfer as college credits.

[CIP 19.0708]

### **SERVICE PROGRAMS (continued)**

## **EDUCATION**



The number of young adults seeking k-12 education degrees in Pennsylvania has dropped drastically over the last 10 years. With many teachers reaching retirement and not many trained professionals to replace them, students are not aware of the opportunities that will exist in education over the next decade. This program is designed to help students make informed decisions about the field and provide them advanced placement into a collegiate education program. Students will be instructed on the history of education, teaching pedagogy, techniques for engaging students, as well as the many

different pathways of education. Instruction will be both theory and first-hand experiences in the teaching profession, including the opportunity to shadow other teachers. *Grades 11-12*  
[CIP 13.0101]

## **HEALTH OCCUPATIONS**



The world of healthcare is booming and proves to be one of the fastest growing industries today. Because the field of healthcare is so expansive, there are many careers to choose from. This program will give you the opportunity to explore careers during your sophomore year along with medical terminology, anatomy and physiology and nursing skills. Your junior year you will start to form a foundation for any healthcare career you decide to pursue. Certified Nursing Assistant will be available your junior year if that is the pathway you have chosen. The career pathways being offered your Senior year are medical assistant, pharmacy technician, EMT, nursing (advanced standing for LPN), and health unit coordinator. These pathways will be structured as apprenticeships with a specified number of hours on the job training at the healthcare facility. These apprenticeships may lead to full-time employment after graduation or advanced standing in a Licensed Practical Nurse Program. [CIP 51.0899]

*Pathways Include: Nurse, Patient Care, EMR & EMT, second year enrollment in Medical Assistant or Rehabilitation*

*Certifications: AED Essentials, BLS Healthcare Provider, Certified Clinical Medical Assistant (CCMA), Certified EKG/ECG Technician (CET), Certified Nurse Technician (CNT), Certified Patient Care Technician (CPCT), Certified Pharmacy Technician (CPhT), Community First Aid and Safety, Electronic Health Record Certification, First Aid, Medical Assisting Clinical and Clerical, Nurse Aide Registry, OSHA Certification, Patient Care Technician, Phlebotomy Technician*

## **MEDICAL ASSISTANT**



Students learn basic clinical and medical office skills that will prepare them to work alongside physicians and mid-level providers in outpatient and ambulatory care facilities, such as medical offices and clinics. Students will gain knowledge of professionalism, health care law and ethics, various health care practices, administrative skills, pharmacology, infection control, laboratory procedures, insurance/utilization review principles, ICD-10/CPT medical coding, communication skills, basic anatomy and physiology, safety and emergency practices and various clinical procedures. [CIP 51.0801]

*Certification: BLS Healthcare Provider, Certified Clinical Medical Assistant (CCMA), Certified EKG/ECG Technician (CET), Certified Phlebotomy Technician (CPT), OSHA Certification*

## **REHABILITATION AIDE (SPORTS MEDICINE)**



Rehabilitation Aide is geared toward juniors and seniors to learn the skills necessary to succeed in the sports and physical medicine fields. Students gain hands-on experience with manual skills that will help them gain advantage in both entry level vocation and post-secondary education. Students utilize taping, modalities, and the importance of education to physical health. Build exercise programs and help patients carry them out, while modifying as appropriate. [CIP 51.2604]

*Certification: ConcussionWise, HeartWise, CardiacWise, First Aid + CPR, OSHA Healthcare and Certified Personal Trainer*

### **SERVICE PROGRAMS (continued)**

#### **SERVICE OCCUPATIONS**



Service Occupations is an innovative program focusing on training students in a diverse array of skill sets in service-related employment areas. Students will learn in an environment that fosters good work ethic, competitive time on task and appropriate work skills for each identified career area. The Service Occupations curriculum encompasses the areas of workplace safety, grounds maintenance, cleaning practices, housekeeping, custodial and retail stock, as well as, kitchen safety, cooking and baking, food preparation, dining room services, commercial dishwashing and commercial laundry services. All areas are instructed with the intent of achieving a level of competency commensurate with competitive employment. [CIP 19.9999]

*Skills Learned: building maintenance, landscaping, retail merchandising, hospitality management, food prep services, health care support, workplace safety, and career preparation.*

### **TECHNOLOGY AND MAUFACTURING PROGRAMS**

#### **COMMERCIAL ART AND DESIGN**



This course is designed to prepare students for a career in this high demand field by pairing their creative and artistic talents with different types of media. From creation to production, students learn all aspects of the graphic design world. Students will be introduced to graphic design fundamentals, layout and design, typography, airbrushing, screen printing, cad-cut and heat press transfers, vinyl design graphics, and bindery. Desktop publishing and computer graphics have become an essential part of graphic communications. Students will use software applications such as (Adobe Creative Suite CS5) Adobe Photoshop, Indesign, Illustrator, Freehand, and Flexi-sign Pro. Prospective students should possess creativity, good English and spelling skills, good organizational skills, and the ability to pay attention to detail. [CIP 50.0402]

*Certification: Adobe Illustrator, Adobe Photoshop, Adobe Indesign, OSHA Certification*

#### **ENGINEERING & MANUFACTURING / PRODUCTION**



Advanced Manufacturing is a program focused on the design and implementation of manufacturing technologies and systems. This program prepares students for careers in the engineering and manufacturing fields. Students enrolled will learn a combination of 3D drafting, 3D printing, CAM and CNC machining, mechanical drives, electronics, pneumatics, hydraulics, PLC programming, robotics, precision measurement and quality control, properties of materials, and engineering processes. Students who enjoy STEM activities and problem-solving will enjoy this classroom and will be engaged in designing, developing, and testing electromechanical devices, automation systems, and manufacturing systems. Students will earn industry certifications and college credits through multiple colleges/universities while in the program. Students will also learn how to work as a team and develop engineering solutions to problems and partner with local industry in real-world, project-based learning. [CIP 15.9999]

*Certification: OSHA 10, Certified Production Technician, J-Std 001 – Soldering*



## **INFORMATION TECHNOLOGY**



This program is designed for students wishing to pursue a career in this ever-changing and challenging field. Information Technology is designed to introduce students to the computer systems and software most commonly used by business. Instruction and hands-on training is provided in all aspects of computers including building, repair and maintenance. Students are also trained in most current Microsoft Office version available, a highly popular software package that includes Word, Access, Excel, and PowerPoint. Students experience programming by maintaining the School's website using HTML and other popular web page editing software. Students are exposed to basic networking and interactive, simulation software is used to prepare students for the A+ Certification test. Students also sit for their IC certification test. [CIP 15.1202]

*Certification: A+, OSHA Certification, PC Pro*

## **MACHINE TOOL TECHNOLOGY**



Skilled machinists are in great demand. The training you will receive in the Machine Tool Technology program can put you on the road to a successful career in this high growth industry. In a state-of-the-art facility, students use manual and computerized machining equipment to cut, mill, grind, or shape metal and non-metal materials. Whether utilizing traditional methods or more advanced techniques such as CNC, students are trained to produce machine parts with a high degree of accuracy. Prospective students should possess strong math skills, manual dexterity, mechanical aptitude, and the ability to solve problems. [CIP 48.0501]

*Certification: Multiple certifications from National Institute for Metalworking Skills, Inc, OSHA Certification*

## **WELDING / AUTOMATED MATERIALS JOINING**



Skilled welders are in great demand. The Welding Program is designed to educate students to their highest level of competency in the welding field. Any student who works well with their hands, enjoys creating objects and taking pride in accomplishing tasks using their own talents should enjoy welding and working with metals. Upon completion of the three year program, the student will be able to enter the job market with a completers welding certificate, listing all phases of welding they have accomplished. They have an opportunity to enter welding contests sponsored by the American Welding Society and SkillsUSA, and earn a welder's certification. Students who are motivated, have good eye-hand coordination and good vision, with basic math skills should succeed in this program. [CIP 48.0508]

*Certification: Multiple Certifications from American Welding Society, NCCER, OSHA 10, S/P2 – Welding*

## **TRANSPORTATION PROGRAMS**

### **AUTOMOTIVE COLISION AND REPAIR / AUTOMATED MATERIALS JOINING**



The Fayette County CTI you can prepare for a rewarding and profitable career in automotive collision repair. Our program instructs students in the latest techniques and practices in the industry. You will study all phases of auto collision repair and restoration. Your skills will be put to the test as you complete work on demonstration and actual customer vehicles. Students also learn to estimate costs, prepare work orders, and how to manage an auto body shop. Prospective students should possess

manual dexterity, mechanical aptitude, physical strength and stamina, the ability to pay attention to detail and complete projects with accuracy. [CIP 47.0603]

*Certification: ASE, Certified Emissions Inspector, Certified Safety Inspector, Cat II-CAR, OSHA, EPA 609 – Mobile Refrigerant*

## **AUTOMOTIVE MECHANICS**



With the continual advancements in automotive technology, the demand for skilled automotive technicians remains high. In the Automotive Mechanics Program, you will receive both classroom and hands-on instruction in the repair and maintenance of today's cars and light trucks. Students utilize repair manuals, textbooks, and computerized equipment to diagnose, troubleshoot and repair malfunctions within a car's many operating systems. Upon completion of the course, students may also become licensed as state safety and emissions inspection mechanics. Prospective students should possess mechanical aptitude, manual dexterity, physical stamina, and the ability to solve problems. [CIP 47.0604]

*Certification: ASE, Certified Safety Inspector Cat I, Emissions Inspection, EPA 609 – Mobile Refrigerant, OSHA 10, S/P2*

## **DIESEL MECHANICS**



This program prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. The program includes instruction in diesel engine mechanics, suspension and steering, brake systems, electrical and electronic systems, preventive maintenance inspections, drive trains, HVAC systems, and auxiliary installation and repair. [CIP 47.0613]

*Certification: Automotive Service Excellence Certification (ASE), OSHA Certification, OSHA Certification, S/P2 - Automotive Service Safety, Section 609 Certification for Refrigerant Recycling and Recovery*

## **VEHICLE MAINTENANCE AND REPAIR (POWER SPORTS)**



Vehicle maintenance and Repair tech prepares individuals to apply technical knowledge and skills to repair, service, maintain and diagnose problems on a variety of small internal-combustion gasoline engines and related systems used on portable power equipment such as lawn and garden equipment, chain saws, outboard motors, rototillers, snowmobiles, lawn mowers, motorcycles, personal watercraft and pumps and generators. This program includes instruction in the principles of the internal-combustion engine and all systems related to the powered unit. Instruction also includes the use of technical and service manuals, state inspection code, care and use of tools and test equipment, engine tune-up/maintenance, engine overhaul, troubleshooting and diagnostic techniques, drive lines and propulsion systems, electrical and electronic systems, suspension and steering systems and service operations and parts management. [CIP 47.0699]

*Certifications: OSHA Certification, Outdoor Power Equipment Technician Certification, Section 609 Certification for Refrigerant Recycling and Recovery*

## **EMBEDDED COURSE OFFERINGS**

### **SOAR/STATEWIDE ARTICULATION PROGRAMS**

prepare today's student for tomorrow's high demand and high wage careers. The Pennsylvania Department of Education (PDE) supports career and technical education students aligning their high school courses to a college program in order to complete a degree, diploma or certificate. SOAR is built on programs of study (POS) that incorporate secondary and postsecondary education elements and include coherent and rigorous academic and technical content aligned with Pennsylvania's challenging academic standards.



#### **Program Requirements:**

- Earn your H.S. Diploma
- Maintain a 2.5 GPA
- Pass NOCTI Exam
- Complete program Competencies

**COOPERATIVE EDUCATION** combines classroom study with planned and supervised paid vocational experience and selected employment assignments. It involves students pursuing their career objective while attending school through half-day sessions. Cooperative Education is a program established by the Pennsylvania Department of Education. The Cooperative Education program is designed to help the students understand and cope with the world of work while providing an educational experience through on-the-job training so the student learns while he/she earns. Cooperative Education also provides the employers in the community with responsible citizens who can be trained and skilled to meet the companies' desires and interests. This program promotes a close relationship with the community and the school in developing skills for a better place to live and work. This provides a pool of potential full-time employees who are trained to meet the companies' requirements and that are proven through part-time work. Their productivity results in better selection of entry-level personnel.



**ADVANCED CAREER PROGRAMS (AC)** are an innovative initiative of the Southern Regional Education Board. AC programs include an advanced curriculum that is designed to address a specific career area, and provide a programs of study that prepare students for careers and meaningful credentials or postsecondary certificates or degrees. The AC demanding curricula blends learning experiences that advance students' literacy, math, science and technical knowledge and skills, and strengthen the habits and mind for success. The courses are organized around authentic, hands-on projects requiring application of rigorous standards and 21st-century skills.



**DUAL ENROLLMENT** is a unique opportunity for high school students to take college classes while earning their high school diplomas. Students are enrolled in both their high schools and partnering community colleges or other postsecondary institutions where they earn college credits. Students who participate in these programs can save tuition costs after graduation, complete their post-secondary degrees earlier, and reduce the stress of their first semesters at the collegiate level.

