Perkiomen School

2025-26

COURSE CATALOGUE

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OUR MISSION

The Perkiomen community inspires students to risk becoming their best.

OUR PHILOSOPHY

Our Community
Perkiomen School is a boarding and day school dedicated to fostering a diverse and multi-talented student body. We challenge each other to work and rework in pursuit of excellence each and every day.

Our Program
Perkiomen School affords the best of a liberal arts education while cultivating entrepreneurial spirit in our students. We promote active inquiry and problem-solving, making education relevant and exportable to a future we cannot predict.

Our Students
Perkiomen School's students embrace global citizenship. Our students join together from different countries, races, socio-economic backgrounds, religions, sexual orientations, gender identities, and worldviews to be the heart of campus life.

Our Faculty
Perkiomen School's faculty meets students where they are. Our faculty members are collectively accomplished in academics, athletics, and the arts, with a desire for continuing education and a passion for mentoring students.

Our Campus
Perkiomen School provides a range of opportunities for students to explore their interests and the world around them. We are an inviting, safe home that nurtures a sense of curiosity, physical well-being, and belonging.

Our Motto
Perkiomen School's motto is "SOLVITUR VIVENDO." We believe that experience is the best teacher and that the challenges of modern life are only solved through engaged and thoughtful living.

MIDDLE SCHOOL SCHEDULE (GRADES 6-8)

1. English
2. Mathematics
3. History & Social Sciences
4. Science
5. World Language
    a. Introduction to Latin – 6th grade
    b. Introduction to Spanish and Chinese – 7th grade
    c. Level 1 world language – 8th grade
6. Electives (2)
    a. Team Building (6th and 7th grade)
    b. MS Art, MS Rock Band, MS Theater, Performance
    c. Foundations of Institutes
    d. Analog Game Design (8th grade)
    e. Critical and Creative Writing (8th grade)
    f. History of World War I & II (8th grade)
    g. Ornithology (8th grade with permission)
    h. Photography (8th grade)

Note: English, mathematics, history & social science, and science have a three-year curricular sequence. Each year, two of the three courses are offered. This rotation allows for greater scheduling flexibility. Each course is differentiated for the age level of the students enrolled in the course.

UPPER SCHOOL SCHEDULE (GRADES 9-11)

Grade 9 Schedule:

1. English – Foundations of Literature and Composition
2. Mathematics – Appropriate level
3. History & Social Sciences – Human Geography (Qualified students may opt into AP Human Geography)
4. Science – Physics (Qualified students may opt into AP Physics 1)
5. World Language – Appropriate level
6. Elective (optional)

Grade 10 Schedule:

1. English – World Literature or AP Seminar
2. Mathematics – Appropriate level
3. History & Social Sciences – Modern World History *(eligible students may select AP World History)*
4. Science – Chemistry
5. World Language – Appropriate level
6. Elective (optional)

Grade 11 Schedule:

1. English – American Literature or AP Language and Composition
2. Mathematics – Appropriate level
3. History & Social Sciences – United States History or AP United States History
4. Science – Biology *(eligible students may take AP sciences and/or other electives)*
5. World Language – Appropriate level
6. Elective (optional)

STUDENT SCHEDULE FOR GRADE 12 OR PG

Grade 12 Schedule:

1. English – Contemporary Literature and Communications or AP Literature
2. Mathematics – Appropriate level
3. History & Social Sciences
4. Science
5. World Language – Appropriate level
6. Elective (optional)

GRADUATION REQUIREMENTS

A minimum of 60 course credits are required for graduation, including:

ENGLISH (12 credits)
All students are required to complete four years of English study for graduation. English as a Second Language Literature and Composition courses satisfy one year of English study. Qualified students may apply for enrollment in AP English Literature or AP English Language.

HISTORY & SOCIAL SCIENCES (9 credits)
All students are required to complete three years of History & Social Sciences study for graduation, including one required year of United States History or AP United States History. Students traditionally complete Human Geography as freshmen, Modern World History or AP World History as sophomores, and either United States History or AP United States History as juniors.

SCIENCE (9 credits)
All students must complete three years of science for graduation. The science department subscribes to the Physics First model, which means that students traditionally complete Physics as freshmen, Chemistry as sophomores, and Biology as juniors.

MATHEMATICS (9 credits)
All students are required to complete three years of mathematics up through Algebra 2 or the equivalent. The traditional sequence is: Pre-Algebra, Algebra 1, Geometry/Honors Geometry, Algebra 2/ Honors Algebra 2 with Trigonometry, Algebra 3 with Trigonometry, Pre-Calculus/AP Pre-Calculus or AP Statistics, Honors Calculus, AP Calculus AB, or AP Calculus BC.

WORLD LANGUAGES (6 credits)
Upper school students are required to take two consecutive years of the same world language. Students who start their World Language in middle school are required to complete the third year of the language in upper school. If English is a student's second language, they may consider English class to be their World Language. Three or four years are preferable for college admission.

VISUAL & PERFORMING ARTS (3 credits)
Students are required to complete one year of visual or performing arts.

ELECTIVES (12 credits)
Students must supplement with four courses of their choosing in any department. Elective courses are other academic courses.

PHYSICAL EDUCATION
Perkiomen School does not offer physical education classes for upper school students. To satisfy the physical education requirement, students must participate in after-school activities. One trimester must be an approved physical activity or interscholastic athletic team. There are several options for each term.

HEALTH
Perkiomen School fulfills the health requirements through a required class in the 10^{th} grade. Additionally, the advisor program includes a Wellness Curriculum. And, Middle School students take a Wellness class.

MIDDLE SCHOOL INSTITUTE ELECTIVES

INS-010 Foundations of Institutes

This project-based class will introduce students to topics in Entrepreneurship, Medicine, Artificial Intelligence, and Design Thinking. Throughout the year, students will engage in design thinking to learn how to derive value and establish a growth mindset. Identifying and developing personal leadership skills will be highlighted while students employ the iterative process of design. Experiences will strengthen resiliency and frame failure as a necessary component of success.

INS-020 Team Building

Team Building provides sixth and seventh grade students an opportunity to learn the value of teamwork and collaborative learning. Through physical and mental games and challenges, students learn to problem-solve with the help of their peers. The interpersonal skills they develop through these activities help them in all aspects of their daily lives, including their classes and after-school activities.

ENTREPRENEUR INSTITUTE

All Perkiomen students will have access to all of the components of the Entrepreneur Program. Those seeking formalized recognition of their work will fulfill the following requirements:

1. Fulfill all Perkiomen School graduation requirements.
2. Academic Component: nine Entrepreneur credits
    A. Foundations of Entrepreneurship (3 credits)
    and
    B. Two cross-listed Entrepreneur courses (6 credits) or a pre-approved equivalent.
3. Declare intent to earn Distinction by October 1 of graduating year
4. Complete a Capstone project and supporting portfolio (6 credits)

Academic Component: In addition to Foundations of Entrepreneurship, students will take two cross-listed classes. These classes will count toward graduation requirements in their home department, as well as toward Entrepreneurial Distinction on their diploma.

INS-101 Foundations of Entrepreneurship
This project-based year-long course will provide the base for students to succeed in the Entrepreneur Program. Students will undergo a process of personal reflection as they develop an understanding of what excites and engages them. They will examine how they interact with the world, cooperate and work with others, and lead and manage a process to completion. The course will emphasize specific skills in business development such as marketing, finance, and management. An individualized plan will be created to meet the required elements of each program.

INS-201 Honors Foundations of Entrepreneurship
Do you have an idea that would improve your community, change the world, disrupt the current marketplace? EntreX Lab provides a hands-on approach to learn the entrepreneurial skills of idea generation, creative problem solving, leadership, evidence-based decision making, resilience, teamwork, and persuasive communication. Through first-hand experience with the entrepreneurial process, students build the mindset needed to create, capture, and deliver value from new ideas in any sector. With opportunities to connect with like-minded peers across the state and throughout the world, this course serves as an empowering opportunity to turn ideas into action. Juniors, seniors, and PG students enrolled in this course will be co-enrolled in The University of Delaware's Horn School of Entrepreneurship. There is an additional fee of $500 paid directly to the University of Delaware.

Entrepreneur Institute Cross-Listed Courses:

Artificial Intelligence Institute

- Computer Programming
- AP Computer Science Principles
- AP Computer Science A
- Digital Game Design
- Mobile App Design
- Web Design

Visual & Performing Arts Department

- Additive Manufacturing
- Graphic Design & Marketing
- Honors Advanced Graphic Design & Marketing
- Industrial Design & Prototyping *(offered as an afternoon activity)*

History & Social Sciences Department

- AP Micro and Macro Economics
- AP Psychology

Mathematics Department

- Advanced Algebra with Financial Applications
- Data Collection and Analysis
- AP Statistics

Other

- Pre-approved Alternative Course

Science Department

- Engineering & Applied Science
- Scientific Research and Design
- Scientific Investigation
- Robotics *(offered as an afternoon activity)*

Capstone Project: Students will engage in a significant and rigorous enterprise. The capstone project will be the synthesis of all of the knowledge a student has developed during their education. Capstone projects may be individual or group enterprises.

Diploma Option for Entrepreneurial Distinction
Upon successful completion of their capstone students that meet all the requirements of the Entrepreneur Institute (see details in section on Entrepreneur Institute) will receive a special Entrepreneurial Distinction on their diploma and their transcript will reflect the course title of Entrepreneurship Program and Capstone with a letter grade of A and six credits.

MEDICAL INSTITUTE

The Medical Institute at Perkiomen School launched in the fall of 2018. This competitive program will provide coursework and experiential learning for students interested in pursuing a career in the medical profession / healthcare. Students will have the ability to tailor their programming based on their personal interests. The program consists of traditional coursework, one or more external experiences, and capstone. All Perkiomen students will have access to all of the components of the Medical Institute. Those seeking formalized recognition of their work will fulfill the following requirements:

1. Fulfill all Perkiomen School graduation requirements.
2. Academic Component: (9 credits)
    a) Foundations of the Medical Field (3 credits)
    and
    b) Two cross-listed medical courses or a pre-approved equivalent (6 credits)
    c) It is strongly encouraged that students take Scientific Research and Design to help complete their capstone.
3. Declare intent to earn Distinction by October 1 of graduating year
4. Complete a capstone project and present on the findings (6 credits)
    a) Students will need to submit a Medical Distinction Plan for pre-approval.
5. Complete and reflect on at least one external or authentic medical experience.

Academic Component: In addition to Foundations of the Medical Field, students will take two cross-listed classes. These classes will count toward graduation requirements in their home department, as well as toward Medical Distinction on their diploma.

INS-102 Foundations of the Medical Field

This student interest driven course will provide the foundation for students to be successful in the Medical program and beyond. Students will examine aspects of healthcare and medicine and have the opportunity to explore different professions. Students will engage in projects related to their interests to help prepare them for application for Medical Distinction. This course will provide the students with the ability to analyze issues and problems, debate medical ethics, and communicate effectively. An individualized plan will be created to meet the required elements of each program.

Medical Institute Cross-Listed Courses:

History & Social Sciences Department

- AP Psychology

Mathematics Department

- Data Collection and Analysis
- AP Statistics

Science Department

- AP Biology
- AP Chemistry
- AP Physics 2, or C
- Anatomy and Physiology
- Engineering & Applied Science
- Scientific Investigation
- Scientific Research and Design

Visual & Performing Arts Department

- Additive Manufacturing
- Digital Game Design
- Graphic Design & Marketing
- Honors Advanced Graphic Design and Marketing
- Jewelry
- Mobile App Design
- Photography
- Web Design

Other

- Pre-approved Alternative Course *(Perkiomen or Non-Perkiomen course)*

Institute Enrollment: Students who seek Medical Distinction will need to complete a Medical Distinction Plan that outlines how they will complete each of the program requirements (academic component, external experience, and practicum). Students must declare their intent to seek disctintion by October 1. Then, their Medical Distinction Plan should be completed no later than January 15 of the candidate's junior year. Plans submitted after January 15 will be considered for acceptance based on prior work completed. Students who successfully complete a Medical Distinction Plan will be identified as Candidates for Medical Distinction annually every spring.

External Experience:

1. Students must complete at least one authentic medical experience outside of the classroom.
2. May be completed during the school year or summer.
3. The external experience requirement may be satisfied through:
    a) Perkiomen School weekend workshops *(offered once a term)*
    b) Pre-approved medical science training experience or camp (example: EMT Training, First Aid/CPR, personal training, yoga instructor)
    c) Pre-approved shadowing program

Capstone Project Components:

- Literature review
- Original interest-driven research project including:
    - Experimental design
    - Data collection & analysis
    - Presentation of results in written report, oral presentation, and poster
- Most student capstones are supported by taking Scientific Research & Design in their junior/senior year.

Diploma Option for Medical Distinction

Upon successful completion of their capstone students that meet all the requirements of the Medical Institute (see details in section on Medical Institute) will receive a special Medical Distinction on their diploma and their transcript will reflect the course title of Medical Program and Practicum with a letter grade of A and six credits.

ARTIFICIAL INTELLIGENCE INSTITUTE

While named for Artificial Intelligence, students who choose to seek distinction in this institute will explore a wide variety of emerging technologies. All Perkiomen students will have access to all of the components of the Artificial Intelligence Institute. Those seeking formalized recognition of their work will fulfill the following requirements:

1. Fulfill all Perkiomen School graduation requirements.
2. Academic Component: (9 credits)
    a) Foundations of Artificial Intelligence (3 credits)
    and
    b) Two cross-listed Artificial Intelligence courses (6 credits) or a pre-approved equivalent.
3. Declare intent to earn Distinction by October 1 of graduating year
4. Complete a Capstone project and supporting portfolio (6 credits)
5. Complete and reflect on at least one external or authentic experience.

Academic Component: In addition to Foundations of Artificial Intelligence, students will take two cross-listed classes. These classes will count toward graduation requirements in their home department, as well as toward Artificial Intelligence Distinction on their diploma.

INS-103 Foundations of Artificial Intelligence

The Foundations of Artificial Intelligence is a full year course designed to contextualize society, industry, and life in contemporary and near future technologies. This exploration and use of artificial intelligence and other emerging technologies will prepare students to both understand and lead in the interaction with application of the latest technologies. Computer scientist and engineer types are welcome to take this course; however, it is designed for everyone, so no technical prerequisites are necessary. Learn how to thrive in the future today. An individualized plan will be created to meet the required elements of each program.

INS-203 Technology of Wireless Communication

In this elective course, students will develop the ability to select, adapt, and adjust the appropriate wireless technology to convey a particular message. Students will explore the many types, capabilities, and limitations of wireless communication technology. This course will emphasize the integration of technology, mathematics, science, geography, language skills, and social responsibility within our global society. Students will learn the required material for and work toward obtaining the FCC Technician Class Amateur Radio license via coordination with a local Amateur Radio club. A major goal of the course will be to assist students in making long-distance contacts using Amateur Radio, including with the astronauts aboard the International Space Station. Required Math Level: Algebra 2 (Pre-requisite OR concurrent enrollment)

INS-303 Computer Programming

This course emphasizes the discipline of computer science, focusing on techniques and strategies to use the computer as a problem-solving tool. Students will learn how to break problems down into smaller parts, craft careful solutions, and turn those solutions into working on computer programs. The course assumes no prior programming experience or technical knowledge. Students will learn the Python programming language in this course. Students who successfully complete this course may have the skills to move on to the AP Computer Science course. This course exposes students to the basics of computer programming: variables, control structures, stepwise refinement, testing, and debugging.

INS- 360 Digital Game Design

This course teaches students the fundamentals of game design by using Unity's game engine. By the end of this course, students will understand the design planning process, be knowledgeable of industry related careers, and be able to navigate the Unity environment, add special effects, manipulate cameras, and set up character animations to enhance their own 3D games.

INS- 361 Mobile App Design

Mobile applications are becoming increasingly important to our consumption of media, news, social interaction, and learning. In this course, students learn how to create mobile apps using React Native, build applications to run on their own smartphones, and create an app to solve a specific problem.

INS- 362 Web Design

This is a single-year computer science course introducing the basics of web design and programming concepts. Students learn the basics of HTML, CSS, and JavaScript, and students create a culminating personal portfolio website showcasing projects they build throughout the course. Students will finish this course with tangible, professional, mobile responsive websites.

INS-494 Advanced Placement Computer Science Principles

Advanced Placement Computer Science Principles introduces students to the central ideas of computer science, inviting students to develop the computational thinking vital for success across multiple disciplines. The course is unique in its focus on fostering students to be creative and encouraging students to apply creative processes when developing computational artifacts. Students design and implement innovative solutions using an iterative process similar to what artists, writers, computer scientists, and engineers use to bring ideas to life. AP Computer Science Principles course is complementary to AP Computer Science A. Students can take these courses in any order or at the same time, as schedules permit. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

INS-499 Advanced Placement Computer Science A

This course is designed for students who are serious about programming. Students will learn the JAVA programming language in this course, which requires a good mathematical background and strong program solving skills. The course is designed to prepare a student for the Advanced Placement Computer Science exam, level A. Topics include simple, user-defined, and structured data types, algorithm development, decisions and loops, arrays, recursion, searches and sorts, data abstraction, and classes. Prerequisite course includes Computer Programming or AP Computer Science Principles. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

Artificial Intelligence Institute Cross-Listed Courses: (Minimum of 2)

History & Social Sciences Department

- AP Psychology

Institute Department

- Computer Programming
- AP Computer Science Principles
- AP Computer Science A
- Digital Game Design
- Mobile App Design
- Web Design

Mathematics Department

- Advanced Algebra with Financial Applications
- Data Collection and Analysis
- AP Statistics

Science Department

- Engineering and Applied Sciences
- Scientific Research and Design

Other

- Pre-approved areas of independent study such as: https://cognitiveclass.ai/courses/ https://www.coursera.org/specializations/emerging-technologies

Visual & Performing Arts Department

- Graphic Design & Marketing
- Additive Manufacturing
- Industrial Design and Prototyping *(offered as an afternoon activity)*

Capstone Project: Explore and apply an emerging technology with significant rigor and produce an end product suitable for exhibition.

External Experience: This requirement could be satisfied through any of the following and may be completed during the school year or summer:

- Coding or technology-based programs or camps (for example, Stanford InspiritAI)
- Regular participation in an AI, video game design, or other technology-related meetup group
- Creation of a database or technological solution to help solve a problem for a business or organization.
- Technological product or game testing
- Participation in competitions (computer programming, prototyping, game design, etc)
- Fablab or makerspace classes (Ex., Montco Fablab classes in electronics, guitar-making, or welding)
- Pre-approved shadow program, internship, or membership

Diploma Option for Artificial Intelligence Distinction

Upon successful completion of their capstone students that meet all the requirements of the Artificial Intelligence Institute will receive a special Artificial Intelligence Distinction on their diploma and their transcript will reflect the course title of Artificial Intelligence Program and Capstone with a letter grade of A and six credits.

DESIGN THINKING INSTITUTE

The Design Thinking Institute is modeled after Design Thinking programs at Stanford University and MIT. Students engage in the process of problem solving by using the Design Thinking model (Empathize, Define, Ideate, Prototype, Test). This model lends itself to solving any challenge, and enhances the creative process.

Students will have the ability to tailor their programming based on their personal interests. The program consists of traditional coursework, one or more external experiences, and capstone. All Perkiomen students will have access to all of the components of the Design Thinking Institute. Those seeking formalized recognition of their work will fulfill the following requirements:

1. Fulfill Perkiomen School graduation requirements.
2. Academic Component (9 credits)
    a) Foundations of Design (3 credits)
    and
    b) Two cross-listed courses (6 credits) or a pre-approved equivalent
3. Declare intent to earn Distinction by October 1 of graduating year
4. Complete a Capstone project (6 credits)
5. Hold an exhibition or have an authentic audience for your work.

Academic Component: In addition to the Foundations of Design, students will take two cross-listed classes. These classes will count toward graduation requirements in their home department, as well as toward Design Distinction on their diploma.

INS-104 Foundations of Design

The Foundations of Design is a full-year course that utilizes a human-centered design process to iterate in various media. Students will be exposed to various areas of design that include, but are not limited to fine and decorative arts, plastic, and digital while learning about the use of color, texture & form, graphic design, typography, and composition. Students with a strong art background will find this course extremely rewarding, however, the course is designed to be approachable and valuable to students without an arts background as well. Ultimately this is a project-driven class, and each student will select a medium or topic to explore the design process deeply. An individualized plan will be created to meet the requirements of the course.

INS-120 Analog Game Design

Examining card, dice, board, and tabletop games, students will not only look at how games work, analyzing some of the statistical backbone of games, but will craft their own variants of games, building upon games that came before, and eventually work at designing their own game. We will play games, playtest games, troubleshoot game mechanics, and offer feedback to one another. Consider games like: War, Uno, Monopoly, Checkers, Chess, and Settlers of Catan. What works about them? What doesn't work? How could they be better? We will also look at games like Love Letter and Pandemic. Note: This course fulfils Visual and Performing Arts credit.

INS-204 Advanced Design Concepts (Design -X)

DesignX is an advanced course offering an in-depth exploration of sustainable design and innovation. Students enrolled in this course, will be co-enrolled at the University of Delaware. The course has an additional fee of $500 paid directly to the University of Delaware. for partnered high schools, delves into four key areas that form the backbone of contemporary design practices.

1. Collaborative Ecosystem Design: This module provides students with a comprehensive understanding of collaborative ecosystem design. Topics include policy analysis, industry dynamics, and cross-sectoral strategies. Students will explore the interconnectedness of various sectors and learn to design solutions that address complex challenges within diverse ecosystems.
2. Sustainable Business Model Design: Focusing on the intersection of strategy, business modeling, and sustainability, this segment equips students with the skills to balance environmental responsibility with financial viability. Students will gain insights into creating business models that align with sustainable practices while ensuring economic success.
3. Product Service System Design: Examining the environmental and social impact of supply chains, this module emphasizes the importance of sustainable product-service systems. Students will learn to analyze the lifecycle of products, considering their ecological footprint and societal implications.
4. Eco Design: This segment concentrates on engineering and product lifecycle management from an ecological perspective. Students will delve into the principles of eco-design, understanding how engineering and design decisions impact the environment throughout a product's life cycle.

Throughout the course, students will engage in the principles of design thinking. This includes fostering creative processes, honing problem-finding skills, cultivating empathy and perspective-taking abilities, generating innovative ideas, and fostering effective collaboration. These skills are essential for aspiring designers and innovators to address contemporary challenges and contribute to sustainable solutions.

Students may enroll in this course without taking INS 104. Or, students may enroll in this course as a continuation of INS 104 and expand their capstone work. This course is an additional fee of $500 paid directly to the University of Delaware.

Design Institute Cross-Listed Courses: (Minimum of 2)

History & Social Sciences Department

- Art History
- Advanced Placement Art History

Mathematics Department

- AP Statistics
- Data Collection and Analysis

Science Department

- Scientific Research and Design
- Engineering and Applied Sciences

Other

- Pre-approved areas of independent or outside or online study

Visual & Performing Arts Department

- Studio Art
- Ceramics and Sculpture
- Industrial Design and Prototyping *(offered as an afternoon activity)*
- Additive Manufacturing
- Graphic Design & Marketing
- Honors Advanced Graphic Design and Marketing
- AP Studio Art: Drawing/2D Design/ 3D Design
- Jewelry
- Photography
- Digital Game Design
- Mobile App Design
- Web Design

Capstone Project: Students completing a capstone project will individually design the project with the Design Institute Director. Each project must include significant rigor and execution to create a product for exhibition or presentation to an authentic audience.

Exhibition: Completed Capstones will be displayed or presented to an authentic audience. Examples could range from a traditional visual art show to the delivery of a professional style guide and branding materials to an outside organization.

Diploma Option for Design Distinction
Upon successful completion of their capstone students that meet all the requirements of the Design Institute will receive a special Design Distinction on their diploma and their transcript will reflect the course title of Design Program and Capstone with a letter grade of A and six credits.

LIFE ARTS

Perkiomen's L-Periods (Life Arts) is designed to expose students to life skills that are outside the traditional academic schedule, and which will help them both during and after their years at Perkiomen. Covering issues such as health and nutrition to more practical issues including college planning and basic budgeting, the Life Arts curriculum is sequenced towards specific grade levels.

The Middle School Life Arts curriculum includes Wellness, Social Media, and Cultural Competency.

The Upper School Life Arts curriculum has a broad focus, and it is designed to help students with more specific topics. With the school's approval, students may opt-in to optional class topics that also meet during the Life Arts time slot.

Required classes include: Personal Finance*, Health*, College Counseling, Cultural Competency, Study Skills and Perkiomen Culture. (*Pennsylvania Commonwealth requirements)

Optional classes include: Lead Ex, Choir, Middle School Rock Band, Gamification of Society, Life Guarding, Model U.N., Scientific Investigation, Math Lab I & II, Yoga & Meditation.

Math Labs: Math Lab I reinforces computational skills. Math Lab II reviews algebraic skills. Each class runs for half a term. The course is pass/fail and is not listed on the transcript. Students may choose these courses or be assigned to these courses.

ENGLISH

Middle School English Courses:

ENG-015 Studies in Historical Literacy

Students of Reflections on Literature and History use mostly realistic fiction and nonfiction texts to guide their studies of the English language. Level benchmarks include being able to develop and support a thesis statement, identify and use elements of fiction, demonstrate a broader lexicon of words in written and spoken assessments, and understand the basics of grammar and mechanics in written and spoken English. Novels for the year may include: *Pictures of Hollis Woods* by Patricia Reilly Giff, *The Miracle Worker* by William Gibson, and *The Shakespeare Stealer* by Gary Blackwood.

ENG-025 Identity and Ideals

Students in this course use texts to explore topics of identity, self-discovery, utopias, dystopias, and belonging. Level benchmarks include being able to complete a close reading of a text and annotate for meaning, provide an analysis of studied works in a formal essay, demonstrate a broader lexicon of words in written and spoken assessments, demonstrate a maturity in handling technology to further their academic pursuits, and understand the basics of grammar and mechanics in written and spoken English. Novels for the year may include *The Outsiders* by S.E. Hinton, *The Giver* by Lois Lowry, *and Bud, Not Buddy* by Christopher Paul Curtis.

ENG-035 Cultural Literacy

Students of resilience and empathy explore the benefits, drawbacks, and responsibilities that are inherent in community life, including prejudice, stereotyping, crowd behavior, family loyalty, friendships, civic participation, belonging, and sense of self. Level benchmarks include being able to develop an organized line of reasoning in their analyses of texts, analyze and use elements of fiction in a variety of works, deepen their ability to discuss and debate, demonstrate a broader lexicon of words in written and spoken assessments, and understand the basics of grammar and mechanics in written and spoken English. Preparation for upper school reading and writing is emphasized. Novels for the year may include *Romeo and Juliet* by William Shakespeare, *American Born Chinese* by Gene Luen Yang, *Dear Martin* by Nic Stone, *Long Way Down* by Jason Reynolds, and an assortment of short stories and poems.

Upper School English Courses:

ENG-100 Foundations of Literature and Composition

This course lays the foundation of skills required for students to be effective readers, writers, and thinkers. Literary terms and analysis are emphasized through lively class discussion, and students practice a variety of composition forms, including thesis-driven essays, creative storytelling, and original poetry. While students are introduced to classic works, many of the texts are modern and inclusive Young Adult selections that resonate with our students and inspire exploration of complex topics. Novels for the year may include *The Poet X* by Elizabeth Acevedo, *Fresh Ink: An Anthology* edited by Lamar Giles, *An Abundance of Katherines* by John Green, and a variety of both classic and modern poems.

ENG-200 World Literature

Through exploring literary voices from around the world, this course seeks to deepen cultural competency and knowledge of key events in global history. Emphasis is placed on distinguishing various genres and elements of literature, with a concentration on universal themes and archetypes. Students analyze drama, short stories, essays, novels, and poetry through class discussion and written compositions. The writing process, strengthening MLA structure, and grammar/mechanics are stressed. Novels for the year may include *The Alchemist* by Paulo Coelho, *The Kite Runner* by Khaled Hosseini, *Interpreter of Maladies* by Jhumpa Lahiri, and *Born a Crime* by Trevor Noah.

ENG-201 AP Seminar

AP Seminar is a course that encourages students to demonstrate critical thinking, collaboration, and academic research skills on topics of the student's choosing. To accommodate the wide range of student topics, typical college course equivalents include interdisciplinary or general elective courses. *Please note that students enrolled in AP courses agree to take the AP exam at the end of the year. Exam fees may apply.*

ENG-220 Critical and Creative Writing

Written expression is a critical skill for success. In this course, students will focus on the elements of written expression to improve their critical and creative writing skills. Students should expect to produce pieces of written work several times a week. They should be open to feedback and the revision process. This course is open to students in grades 8 to 12 and PG. This course is an elective and does not fulfill an English graduation requirement credit.

ENG-300 American Literature

While expanding upon their skills, students enrolled in this course will study the innumerable ways in which literature both reflects and influences America's diverse history, culture, and society. The process of utilizing literary elements and analysis to develop an overall interpretation is emphasized. Students will also work towards college-ready writing by producing compositions in a variety of forms including persuasive letters, analytical essays, and non-fiction narratives. Novels for the year may include *The Crucible* by Arthur Miller, non-fiction *Into the Wild* by Jon Krakauer, classic novel *Their Eyes were Watching God* by Zora Neale Hurston, current YA selections *Let Me Hear a Rhyme* by Tiffany D. Jackson, and a wide variety of poetry from each genre of American Literature.

ENG-401 Contemporary Literature and Communications

This course is designed to meet the developing literary and compositional needs of Perkiomen seniors and Postgraduates. This includes traditional literacy skills such as academic essay writing, narrative writing (to include the college essay), critical reading, and vocabulary acquisition. The course will also expose students to more contemporary types of writing such as social media platforms, modern journalism such as podcasts and video, and an understanding of visual literacy.

ENG-490 Advanced Placement English Language and Composition

This course is open to qualified students upon the recommendation of the English Department and prepares them to take the Advanced Placement English Language and Composition exam. AP English Language and Composition engages students in becoming skilled readers of prose written in a variety of rhetorical contexts as well as skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the intricacies woven through a writer's intentions, audience expectations, and subjects, as well as the way genre conventions and their sources of language contribute to effectiveness in writing. The purpose of this course is to enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

ENG-491 Advanced Placement English Literature and Composition

This course is open to qualified students upon the recommendation of the English Department and prepares them to take the Advanced Placement English Literature and Composition exam. AP English Literature and Composition is an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

ENGLISH AS A SECOND LANGUAGE

ESL Literature Courses:

ENG-6220 Introduction to Literature

This course is designed around global texts and themes to support and expand multilingual language learners' English abilities to prepare them for their current and future classes. Reading and responding to reading by writing and speaking (and projects/games) will increase reading skills and vocabulary development. A major focus is comprehension and connection to texts. In this class, students will develop vocabulary beyond but not exclusive of social language and focus on sentence-level accuracy in written English. The goals of this class will be met by increasing reading skills and strategies with an intensive focus on vocabulary development. Special emphasis is placed on recognizing and writing many of the most common words in English. The structure and direction of the class varies year to year depending on the student's needs.

ENG-6420 Intermediate Literature

This course is a skill-building course designed to guide multilingual learners through an investigation of American culture through its historic and contemporary literature. To support students in their language development and reading comprehension, students will rely on their own rich cultures and lived experiences as they delve into fiction and nonfiction texts that represent the diverse history, culture, and society of America. Students will practice and acquire new vocabulary in writing and speaking in formal and fun activities. A special emphasis on techniques for writing, paragraph cohesion, and accuracy will help students connect to and write about a variety of texts.

ENG-6520 Advanced Literature

Designed specifically for advanced multilingual speakers of English, this reading and writing-intensive course builds on student's existing language skills. Special attention will be given to developing academic vocabulary and comprehension of non-simplified texts. Students are expected to read regularly and continually engage in the writing process with a focus on longer-form, cohesive writing. By the end of the course, students should be able to move beyond comprehension, as they develop an eye for the author's moves and craft.

ESL World Language Courses:

WOL-6110 English Language I

This course is designed to support multilingual students of English increase proficiency in the four domains of language, with special emphasis on speaking and listening. Using WIDA's Can-Do descriptors, students will identify their strengths and will work on individualized goals to increase their English fluency in listening comprehension and speaking skills. Through a variety of level-appropriate activities, students gain fluency in using English in both social and academic settings. Level-appropriate grammar topics and vocabulary are explicitly taught. Students develop cultural competency by investigating classroom expectations, strategies for language learning, and diverse topics pertaining to English speakers around the world. Students will maintain an Academic Language Portfolio to demonstrate language growth.

WOL-6210 English Language II
This course is designed to support multilingual students of English increase proficiency in the four domains of language, with special emphasis on speaking and listening. Using WIDA's Can-Do descriptors, students will identify their strengths and will work on individualized goals to increase their English fluency in listening comprehension and speaking skills. Through a variety of level-appropriate activities, students gain fluency in using English in both social and academic settings. Level-appropriate grammar topics and vocabulary are explicitly taught. Students develop cultural competency by investigating classroom expectations, strategies for language learning, and diverse topics pertaining to English speakers around the world. Students will maintain an Academic Language Portfolio to demonstrate language growth.

WOL-6310 English Language III
This course is designed to support multilingual students of English increase proficiency in the four domains of language, with special emphasis on speaking and listening. Using WIDA's Can-Do descriptors, students will identify their strengths and will work on individualized goals to increase their English fluency in listening comprehension and speaking skills. Through a variety of level-appropriate activities, students gain fluency in using English in both social and academic settings. Level-appropriate grammar topics and vocabulary are explicitly taught. Students develop cultural competency by investigating classroom expectations, strategies for language learning, and diverse topics pertaining to English speakers around the world. Students will maintain an Academic Language Portfolio to demonstrate language growth.

WOL-6410 English Language IV
This course is designed to support multilingual students of English to increase proficiency in the four domains of language, with special emphasis on speaking and listening. Using WIDA's Can-Do descriptors, students will identify their strengths and will work on individualized goals to increase their English fluency in listening comprehension and speaking skills. Through a variety of level-appropriate activities, students gain fluency in using English in both social and academic settings. Level-appropriate grammar topics and vocabulary are explicitly taught. Students develop cultural competency by investigating classroom expectations, strategies for language learning, and diverse topics pertaining to English speakers around the world. Students will maintain an Academic Language Portfolio to demonstrate language growth.

WOL-6510 Public Speaking & Rhetoric
Designed specifically for advanced multilingual speakers of English, this course targets public speaking skills and the art of persuasion. The history, theory, practice, and impacts of rhetoric will be considered as students analyze persuasive artifacts and examine contemporary uses of rhetoric. Students will explore the topics in depth using a variety of rhetorical theories and methods. Grammar and pronunciation exercises will support students as they develop skills to craft persuasive arguments and deliver them effectively using a clear command of English. Students will maintain an Academic Language Portfolio to demonstrate language growth.

ESL History & Social Sciences Courses:

HSS-1100 World Cultures: Human Geography

This course is a year-long sheltered content course designed for multilingual learners. The course focuses on the distribution, processes, and effects of human populations on the planet. Units of study include population, migration, culture, language, religion, ethnicity, political geography, economic development, industry, agriculture, and urban geography. Emphasis is placed on building key vocabulary while learning about geographic models and their applications. Case studies from around the globe are compared to situations throughout the United States to help students develop chronological thinking, the language of analysis, and public speaking skills.

HSS-1210 Modern World History

Specially designed for multilingual learners; this course is a year-long course that mirrors the mainstream Modern World History course offering. This course will expose students to events ranging from the Scientific Revolution to the present while fostering critical thinking and research skills through a focus on group work and discussion. Main areas of study include 18th and 19th-century revolutions, responses to imperialism, the World Wars and Holocaust, and decolonization. Throughout this course, students will be guided to incorporate the perspectives and stories of people throughout the entire world from an array of racial, religious, and ethnic backgrounds. Students will also work on developing their ability to express themselves on paper through targeted vocabulary instruction, small in-class writing assignments, and homework. A major research paper during the winter term will focus on the importance of a well-developed thesis statement and arguments based on the use of strong, reliable evidence.

HSS-1300 United States History

Specially designed for multilingual learners; this course is a yearlong course that mirrors the mainstream United States history course offering from the perspective of someone outside of the nation. In doing so, students engage with both the historical and current issues facing the nation with an understanding that their individual backgrounds influence their viewpoints. As a requirement for the course, students are expected to conduct original research regarding a topic in United States History. Students will also strengthen their writing skills, specifically through the argumentative style essay in which they will substantiate a thesis in order to prove a historical claim.

HISTORY & SOCIAL SCIENCES

Middle School History & Social Sciences Course:

HSS-025 Foundations of History

Through the sub-fields of museum studies, material culture, and oral history, this course seeks to actively engage students in hands-on, experiential learning. Projects made available to the school community, such as historical exhibits or documentaries, will provide real-world significance and present students with the opportunity to practice the methodologies of Public History. Simultaneously, students will gain traditional skills in research, analysis, argumentative writing, and public speaking while learning about key events in American history from the Pre-Columbian era to the Second Industrial Revolution. Major content themes include the evolution of race and gender in America, shifting ideas of democracy, and the tension between competing American values.

HSS-035 Trade and Communication

This course aims to get the students thinking globally about why nations have become shaped the way they are and why they interact with each other in the way that they do. Starting with an examination of the meaning of civilization and the early civilizations humans constructed, the course will focus on some of the first attempts to create empires that have a global sense. Exploring the role geography has to play in this process, we will look at case studies from around the world highlighting geography's power to shape culture, the way people live and organize their institutions, and consider questions as elemental as: What resources are available and how are they used? What are the external barriers protecting and unifying a nation, or the internal barriers isolating and dividing them? How do large, unified regions promote strength and how may physically arbitrary boundaries promote strife? The great story of human civilization bends towards creating a world that is more connected, and our studies here intend to provide a far better understanding of the 21st Century in which we live.

HSS-045 Global Policy

This course focuses on the central roles which the United States and the United Nations have played in international politics throughout the last half-century. The course will begin with discussions about the United States' role in the world before moving on to a general discussion of key concepts in international relations and how countries interact with each other in an interdependent, globalized world. As a final project, students are challenged to participate in a Model United Nations Security Council simulation using history and international relations as tools to view, analyze, and understand relevant, contemporary global issues and world politics.

Upper School History & Social Sciences Courses:

HSS-100 Human Geography

Human Geography is a year-long course that focuses on the distribution, processes, and effects of human populations on the planet. Units of study include population, migration, culture, language, religion, ethnicity, political geography, economic development, industry, agriculture, and urban geography. Emphasis is placed on geographic models and their applications. Case studies from around the globe are compared to the situation in both the United States and locally. Internet activities are used to explore certain topics. *Please note: Qualifying students may have the opportunity to take the AP Human Geography exam. Exam fees may apply.*

HSS-200 Modern World History

This course is designed to expose students to events ranging from the Scientific Revolution to the present while fostering critical thinking and research skills through a focus on group work and discussion. Main areas of study include 18th and 19th-century revolutions, responses to imperialism, the World Wars and Holocaust, and decolonization. Throughout this course, we will make an effort to incorporate the perspectives and stories of people throughout the entire world from an array of racial, religious, and ethnic backgrounds. Students will also work on developing their ability to express themselves on paper through small in-class writing assignments and homework as well as an extended-term paper during the winter term. All of this will focus on the importance of a well-developed thesis statement and a well-reasoned argument based on the use of strong, reliable evidence. *Please note: Qualified 200-level students have the option to take either HSS-200: Modern World History or HSS-490: Advanced Placement World History, but not in succession.*

HSS-300 United States History

This course will allow students to study major themes and trends in American history. The story of America is best told through analyzing documentary evidence in order to understand the impact of major political, social, economic, and cultural events on the American people. Thus, this course will hone students' analytical skills as they ponder the various points of view surrounding key turning points in American history. Students will also strengthen their writing skills, specifically through an argumentative essay in which they will substantiate a thesis in order to prove a historical claim. Through this process, students will better understand cause and effect relationships, patterns of continuity and change, and the interrelated nature of major historical events. Relevance is emphasized, allowing students to gain context and draw direct connections to their lives in modern America. *Please note: Qualified 300-level students have the option to take either HSS-300: United States History or HSS-491: Advanced Placement United States History, but not in succession.*

HSS-351 Advanced Global Studies

This is an introductory course on international politics, relations between actors in the global political system, and the prominent theories in international relations. In this course we will explore topics, encounter puzzles, examine theories, and evaluate evidence to try to gain a greater understanding of world politics. The overarching goal of the course is to understand how the contemporary global political system originated, what historical processes and actors drove its development and change, and the leading theories used by international relations scholars.

HSS-352 Art History

This upper school elective is for students with an interest in History & Social Sciences and art. The teacher uses visual aids and multimedia presentations to present significant works of art and architecture from the prehistoric age through the current era. Emphasis is given to introducing students to the vocabulary and language used to discuss works of art, and writing assignments are geared towards this end. Regular quizzes and tests are given, and a research paper (or project) is completed in the spring term. All course materials are available online through the school website. *Please note: Qualified students have the option to take either HSS-400 or HSS-495: Advanced Placement Art History, but not in succession.*

HSS-360 History of Modern Poetry and Culture

While Rock and Roll is considered inherently American, as is Jazz, there is an even stronger case for hip-hop being the pinnacle of American music in so many ways. This course will examine the origins of hip-hop (and rap), while also attempting to understand the significance of the art-form, not just the music but culture, from poetic origins to fashion to b-boys at the most recent Olympics. Through documentary films, readings, and music appreciation, students will dive into the relatively short, but compelling history of hip-hop. *Note: This course is pending NCAA approval.*

HSS-370 History of World War I & II

The period from pre-WWI, interwar years (Weimar Republic) and WWII leading to the Cold War are usually covered briefly in US History and/or Modern World History courses. This course would cover the topic extensively and allow students to study this time period at a more detailed pace.

HSS-380 Social Psychology

The course will use scientific journal articles, online resources from the APA, and textbook excerpts to guide students through the learning. Topics may include social cognition, personality, multiculturalism and gender, motivation and emotion, and maybe touch upon abnormal social psychology. Main thought questions include: what is the relationship between behavior and cognition? How do our biases affect our perception of reality? What ethical concerns are relevant when studying social psychology? How can knowledge of social psychology impact on our communities? *Note: This course is pending NCAA approval.*

HSS-490 Advanced Placement World History: Modern

This course is open to qualified students by recommendation of the History & Social Sciences Department and prepares them to take the Advanced Placement World History: Modern exam in May. Emphasizing global history rather than any one state or region, this course focuses on change and continuity within societies as well as comparisons between them. It surveys global economic, social, and political trends from 1200 to the present. Throughout the course, students will engage in a variety of styles of writing all of which will focus on the importance of a well-developed thesis statement, a well-reasoned argument based on the use of strong, reliable evidence, and placing that argument in its correct historical context. It is important to note that students in AP classes should expect more than 30 minutes of homework per night. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Qualified 200-level students have the option to take either HSS-200: Modern World History or HSS-490: Advanced Placement World History: Modern, but not in succession.*

HSS-491 Advanced Placement United States History

This course is open to qualified students by recommendation of the History & Social Sciences Department and prepares them to take the Advanced Placement U.S. History exam. This rigorous survey course covers the period from European exploration and colonization through the 2000s. It is expected that students will learn most of the factual knowledge through their own reading, review, and completion of assignments. A significant amount of class time is spent in discussion and doing exercises to gain a better understanding of analytical and interpretive issues in American history. In other words, students learn the "what happened" on their own so the class can focus on how and why history followed the path it did. The course will also focus extensively on complex writing development in conjunction with writing requirements for the AP examination. Students will expand upon their abilities to write a well-developed thesis statement, a well-reasoned argument based on the use of strong, reliable evidence, and placing that argument in its correct historical context. It is important to note that students in AP classes should expect more than 30 minutes of homework per night. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Qualified 300-level students have the option to take either HSS-300: United States History or HSS-491: Advanced Placement United States History, but not in succession.*

HSS-495 Advanced Placement Art History

This course is open to qualified students by recommendation of the History & Social Sciences Department and prepares them to take the Advanced Placement Art History exam. This course is for students with an interest in history and art and is taught in tandem with Art History with differentiated assessments. The teacher uses visual aids and multimedia presentations to present significant works of art and architecture from the prehistoric age through the current era. Emphasis is given to introducing students to the vocabulary and language used to discuss works of art, and writing assignments are geared towards this end. Regular quizzes and tests are given, and a research paper is completed in the spring term. All course materials are available online through the school website. Students following the AP track are expected to do additional homework and exam preparation throughout the year. It is important to note that students in AP classes should expect more than 30 minutes of homework per night. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Qualified 300-level students have the option to take either HSS-400: Art History or HSS-495: Advanced Placement Art History, but not in succession.*

HSS-492 Advanced Placement Micro and Macro Economics

This course is open to qualified students by recommendation of the History & Social Sciences Department and prepares them to take both the Advanced Placement Microeconomics and Macroeconomics exams. The course's microeconomics component gives students a thorough understanding of the economic principles that apply to the functions of individual decision-makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. The macroeconomics component introduces students to fundamental economic concepts such as scarcity and opportunity costs. Students understand the distinction between absolute and comparative advantage and apply the principle of comparative advantage to determine the basis on which mutually advantageous trade can take place between individuals and/or countries and to identify comparative advantage from differences in opportunity costs. Other basic concepts include the functions performed by an economic system and the way the tools of supply and demand are used to analyze the workings of a free-market economy. The course also introduces the concept of the business cycle to give students an overview of economic fluctuations and to highlight the dynamics of unemployment, inflation, and economic growth. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

HSS-493 Advanced Placement United States Government and Politics

This course is open to qualified students by recommendation of the History & Social Sciences Department and prepares them to take the Advanced Placement U.S. Government and Politics exam. This demanding college-level course teaches students to understand and critically analyze important concepts in U.S. politics through the in-depth study of the American government, its foundations, and contemporary discourse. Daily reading assignments, regular persuasive writing assignments, and periodic objective assessments using Advanced Placement multiple-choice questions are required. Success in this course demands more than reading nightly assignments. It requires that students immerse themselves in national politics. As a result, students are expected to read, listen to, and watch the news on a daily basis and to be prepared to discuss political events at the start of every class. Students will be responsible for multiple discussion board posts and writing in an expository format, as per College Board requirements. It is important to note that students in AP classes should expect more than 30 minutes of homework per night. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

HSS-497 Advanced Placement Psychology

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. Students will focus on extending their understanding by applying key terms to real-world scenarios through a significant amount of project-based learning. It is important to note that students in AP classes should expect more than 30 minutes of homework per night. *Please note: Qualified 300-level students have the option to take either HSS-457: Honors Psychology or HSS-497: Advanced Placement Psychology, but not in succession. Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

MATHEMATICS

Math Courses:

MAT-020 Pre-Algebra

This course focuses primarily on developing a strong foundation for future algebraic concepts. Students learn to use variables, rational numbers, and functions to represent patterns and relationships. In addition, they continue to write and solve equations as well as graphing these functional relationships. Students practice real-world application of these skills through problem-solving using current data. Basic concepts of probability, statistics, and geometry are integrated into the course.

MAT-100 Algebra 1

In this course, students learn fundamental algebraic skills, relationships, and applications. They use variables and functions to represent patterns and relationships; gain experience with quadratics, geometry, and trigonometry; focus on setting up and solving equations, and work with polynomials and graphing concepts. The course ends with an introduction to solving general quadratic equations.

MAT-200 Geometry

This course not only focuses on deductive reasoning and proofs, but also emphasizes skills in visualization, pictorial representation, and the application of geometric ideas to the world around us, as well as some trigonometry. Topics include segments, angles, deductive reasoning, parallel and perpendicular lines, coordinate geometry, congruent and similar triangles, quadrilaterals, right triangle trigonometry, circles, and area and volume. Learning is enhanced through the use of DESMOS. Students develop mathematical reasoning and organizational skills needed for future mathematics courses.

MAT-201 Honors Geometry

Qualified students with strong algebraic understanding may enter an honors section of geometry with the recommendation of the Math Department. The course not only focuses on basic geometric properties of lines, planes, and angles but also emphasizes visualization, understanding of enclosed spaces, reasoning with large and small solutions, volume occupancy, and proportional area. Topics include algebraic proof, lines, segments, angles, parallel and perpendicular lines, ratios and proportions, congruence and similarity, special properties of right and non-right triangles, trigonometry, circles and volume, and surface area. Learning is enhanced through the use of DESMOS, designed for an emphasis on coordinate geometry, which is a main focus throughout the course. Students develop mathematical reasoning and problem-solving skills needed for future mathematics courses.

MAT-302 Algebra 2

This course begins with a review of Algebra 1 fundamentals, incorporating the use of helpful websites, calculator lessons, and standardized test practice questions. It also includes the solving of linear equations, inequalities, systems of equations, polynomials, a focus on factoring principles, quadratic equations, rational equations, and conic sections. Algebra 2 prepares students for Algebra 3/Trigonometry and for other future high school math studies.

MAT-310 Honors Algebra 2/Trigonometry

Open to qualified students, this course covers the material of two other courses – Algebra 2 and Algebra 3/Trigonometry – over the course of one year. It begins with a review of Algebra 1 fundamentals, incorporating the use of helpful websites, calculator lessons, and standardized test practice questions. It also includes the solving of linear equations, inequalities, systems of equations, polynomials, quadratic equations, and conics. Students will then end the year by completing a study of trigonometry and then proceeding to polynomial functions, rational polynomial expressions, logarithmic functions, series and sequences, and probability and statistics. This course prepares students for Pre-Calculus and for other future high school math studies.

MAT-320 Data Analysis and Collection

Data is a key tool in every aspect of both academic and real-world applications. This course will focus on how to create data collection tools. Then, students will engage in the process of how data is analyzed. They will dive into both big and small data sets and modes of data analysis. Also, students will learn how to evaluate both the bias and ethics in data collection.

MAT-340 Advanced Algebra Applications

This course dives deep into the practical and theoretical aspects of advanced algebra, focusing on real-world applications and complex problem-solving techniques. Students will explore a variety of algebraic concepts such as polynomial functions, rational expressions, logarithms, graphing, and matrices. Through hands-on projects and real-life examples, students will develop the skills to apply these concepts in fields like engineering, economics, computer science, and natural sciences. The course emphasizes critical thinking, and the use of algebraic tools to analyze and solve complex problems.

MAT-350 Algebra 3/Trigonometry

Students complete the study of polynomial functions, rational polynomial expressions, logarithmic functions, series and sequences, probability, and statistics and then proceed to trigonometry. This course prepares students for Pre-Calculus.

MAT-375 Advanced Algebra with Financial Application

This course is designed to inform students about their role as a citizen, students, family members, consumers, and active participants in the business world. This course is intended to provide opportunities for self-awareness, expression, and satisfaction in a highly technical and competitive society. Students will learn applications of multivariate statistics and their use in market research. Students will review and learn to understand financial statements, how to measure cash flow, valuing a company, raising additional debt and equity capital. Students will get an introduction to basic accounting concepts and gain practice on the following topics: debits, credits, the chart of accounts, the ledger, inventory measurement, net realizable value, recovery of bad debts, and methods for computing interest. The course also includes fixed assets, depreciation and scrap value, methods of depreciation, payroll, and payroll taxes.

MAT-400 Pre-Calculus

This course is open to students who have successfully completed MAT-302: Algebra 2, MAT-301: Honors Algebra 2/Trigonometry, and have the recommendation of the Math Department. The goal of this course is to prepare students for MAT-450: Honors Calculus while developing analytical thinking skills. The course covers functions, domain, range, graphing, and problem solving of trigonometric, logarithmic, exponential, polynomial, and rational functions. The concept of a limit is introduced for sequences and then for more general functions.

MAT-401 Advanced Placement Pre-Calculus
Students must have successfully completed either Algebra 3/Trigonometry or Honors Algebra 2/Trigonometry to be eligible for this course, whose goal is to prepare students for calculus. The course covers functions of a real variable: domain, range, graphing, and problem solving of trigonometric, logarithmic, exponential, polynomial, and rational functions. The concept of a limit is introduced for sequences and then for more general functions. Continuity and the derivative of polynomial functions are vigorously developed.

MAT-450 Honors Calculus
This course is open to students who have successfully completed MAT-400: Pre-Calculus or MAT-401: Honors Pre-Calculus and desire exposure to calculus on a non–Advanced Placement level. It focuses on the study of change using fundamental calculus concepts. The class begins with limits before exploring the differential and integral calculus of a single variable. The use of the TI-84 Plus or TI-89 calculator is required.

MAT-491 Advanced Placement Statistics
This course is open to qualified students who have completed MAT-350: Honors Algebra 3/Trigonometry, MAT-301: Honors Algebra 2/Trigonometry, MAT-400: Pre-Calculus, or MAT-401: Honors Pre-Calculus with an average of B+ or higher and have the recommendation of the Math Department. It prepares students to take the Advanced Placement Statistics exam. This course introduces students to ideas and methods for collecting, analyzing, and drawing conclusions from data and probability models, distributions, hypothesis testing and estimations. Concepts include: exploring data, sampling, experimentation, anticipating patterns, and inference. The use of the TI-84 Plus graphing calculator and other software enables students to perform involved computations, gather samples, and create graphs with ease. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

MAT-492 Advanced Placement Calculus AB
This course is open to qualified students by recommendation of the Math Department and prepares them to take the AP Calculus AB exam. It focuses on the study of change using fundamental calculus concepts. The class begins with limits before exploring the differential and integral calculus of a single variable. The class helps students prepare for the AP exam by giving them a strong conceptual understanding of calculus. A college-level course, it moves at a very fast pace and requires thorough preparation in pre-calculus and strong mathematical skills. The use of the TI-84 Plus or TI-89 calculator is required. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

MAT-493 Advanced Placement Calculus BC
This course is open to students who have completed MAT-492: Advanced Placement Calculus AB with an average of B+ or higher and have the recommendation of the Math Department. Scores on the Advanced Placement Calculus AB exam may be taken into consideration. This course prepares students to take the AP Calculus BC exam. Leading to a deeper understanding of fundamental concepts of differential and integral calculus of a single variable, this course begins with a review of Calculus AB topics before tackling applications of integration, infinite series, differential equations, and polar and parametric equations. Students gain experience with applications and methods through weekly quizzes and practice with Advanced Placement exams. The use of the TI-84 Plus or TI-89 calculator is required. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

SCIENCE

Middle School Science Courses:

SCI-015 Science Foundations

In this course, students will develop the building blocks of physics, biology, and chemistry. The project based work will fuel their understanding of science. The course includes lab work in and out of the classroom and culminates with a science fair project.

SCI-025 Science Discovery

In this course, students discover the basics of scientific investigation, experimentation, and lab procedures. Lab work is formalized including hypotheses, reporting, and presentations. The course includes lab work in and out of the classroom and culminates with a science fair project.

SCI-035 Science Exploration

This course exposes students to a variety of topics across the sub-disciplines of science. Relevant hands-on investigations build fundamental skills such as observation, data collection and analysis, and presentation, among others. The course includes lab work in and out of the classroom and culminates with a science fair project.

Upper School Science Courses:

SCI-110 Physics

This conceptual physics course is developmentally and mathematically appropriate for students entering Grade 9. Students will take a step-by-step approach to problem-solving, providing mathematical models and real-world examples to prepare students to understand the world around them. Classes include hands-on labs that require student involvement in creating procedures whilst determining how to analyze data to find desired results. The following topics are covered: kinematics, projectile motion, forces, momentum, circular motion, and energy.

SCI-200 Chemistry

This course presents a basic introduction to the major principles of chemistry. Students complete classwork, homework, and lab work to build knowledge, conceptual understanding, and problem-solving skills. The course is designed to impart the skills and knowledge necessary for further study in either Advanced Placement or college-level chemistry. Students enrolled in the course are expected to have achieved competency in mathematics through Algebra 1 level.

SCI-310 Biology

This course explores the major areas of biology and is designed to give students an understanding of how biology relates to their lives. The areas of study include evolution, ecology, molecular biology, genetics, and body systems. These will all be based on a hands-on curriculum, inquiry-based learning with an emphasis on real-world applications and a lab curriculum focused on analyzing and evaluating information. This course is designed to prepare students for Advanced Placement or college-level biology.

SCI-320 Engineering and Applied Sciences

This course introduces students to engineering disciplines, concentrating on analytical problem solving and the creation of functional products. (Engineering and applied sciences are strongly connected to industry and real-world applications.) The engineering skills and processes that students acquire can be customized to fit their individual needs while developing unique designs.

SCI-330 Anatomy and Physiology

Providing an understanding of the human body as a true machine with integrated tissues and systems, this yearlong course focuses on different areas in each term. Topics include bony landmarks, fine motor skills development and function, enhanced and modified movement, and the healing process. The course is ideal for students interested in exploring the structure, systems, and repair of the human body, specifically those interested in preparing for medical studies. *Please note: Prerequisite: Completed or concurrently enrolled in Biology.*

SCI-335 Ornithology

This class will go over the basic biology of birds. It includes understanding birds in population ecology, their anatomy and physiology, bird behavior, and migration. Basic bird identification skills will be learned through field studies and the students will have opportunities to contribute to conservation studies through citizen science. *Note: This course is pending NCAA approval.*

SCI-340 Science of Agriculture

This course will explore the intricate relationships between agricultural practices, ecological systems, and societal impacts. This course delves into the historical, environmental, economic, and cultural dimensions of agriculture. We will explore the pursuit of sustainable practices, both traditional and technological, in addressing global challenges such as food security, climate change, and biodiversity loss. *This course is pending NCAA approval*

SCI- 355 Chemistry of Nutrition

This course delves into the relationship between nutrition and performance. Students will discover the knowledge and skills to fuel their bodies for optimal performance and recovery. Students will explore macronutrients, hydration, nutrient timing, and supplementation while learning to develop personalized nutrition strategies based on their sport, position, and training demands. The course includes interactive discussions, hands-on activities including food preparation, and real-world applications to prepare students for competition and lifelong healthy eating habits. *Note: This course is pending NCAA approval.*

SCI-350 Forensics

This lab-based course enables students to gain knowledge regarding the scientific footprint that exists in every setting. Students will use the scientific investigation method to evaluate fixed and evolving environments. Students will need to work in groups and produce lab reports on a regular basis. This course enhances students' reasoning and investigative skills.

SCI- 360 Scientific Research and Design

This course will focus on the development of skills in scientific research, experimental design, and presentation of research. Skills such as evaluating research articles, analyzing scientific data, and thinking critically about current research topics in science will be a focus in the class. The students will complete an independent inquiry-based project of their choosing during the year which will culminate in a research paper, presentation, and research poster. The students may choose any STEM area to complete their project.

SCI-453 Honors Physics (opt into AP Physics 1)

Honors Physics is an algebra-based, introductory-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion), work, energy, power, mechanical waves, and sound. Significant instructional time will be spent doing hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply science practices. *Please note: Qualified students have the option to take either SCI-110: Physics or SCI-453 Honors Physics, but not in succession. Co-requisite: Honors Algebra 2/Trigonometry.*

SCI-490 Advanced Placement Biology

AP Biology is a rigorous and demanding course, which is the equivalent of an introductory college Biology course. Content will be covered in more depth and greater expectations will be placed on interpretation and analysis of information than previous Biology courses. In addition, statistical analysis of data, evaluating information, and modeling of concepts will be expected. A significant amount of studying must be completed outside of the classroom to allow time for discussion, labs, and inquiry during class time. Students are expected to apply their knowledge of biology, therefore must have an excellent foundation in biology. You will be expected to be able to explain themes in Biology using illustrative examples that can be found throughout the text. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Prerequisite: Biology.*

SCI-491 Advanced Placement Chemistry

AP Chemistry course provides students with a college-level foundation to support future advanced course work in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. Students complete classwork, homework, and lab work to build their skills and knowledge and learn test-taking techniques. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Prerequisite: Chemistry.*

SCI-492 Advanced Placement Environmental Science

This class provides students with a foundation of understanding, knowledge, and skills to analyze environmental problems such as global warming, acid rain, endangered species, and invasive plants and animals. Students learn a variety of basic laboratory and field techniques, including soil and water sampling. The course incorporates both academic and applied studies, which include fieldwork in the local watershed and on-site field trips. Topics include the structure and function of natural ecosystems, the history of the environmental movement, and the impact of legal, economic, and political systems on environmental concerns. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Prerequisite: Completed or concurrently enrolled in Biology.*

SCI-494 Advanced Placement Physics 2

AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25% of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply science practices. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Prerequisites: AP Physics I, Co-requisite of Pre-Calculus.*

SCI-495 Advanced Placement Physics C: Mechanics

AP Physics C: Mechanics is equivalent to a one-semester, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus are used throughout the course. Students spend 20% of their instructional time engaged in hands-on laboratory work. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Corequisite: Calculus, AP Calculus AB, or AP Calculus BC.*

SCI-496 Advanced Placement Physics C: Electricity and Magnetism

AP Physics C: Electricity and Magnetism is equivalent to a one-semester calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus are used throughout the course. Students spend 20 % of their instructional time engaged in hands-on laboratory work. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply. Prerequisite: AP Physics I or AP Physics C Mechanics. Corequisites: AP Calculus AB or AP Calculus BC*

THE LEARNING CENTER

The Learning Center Course:

TLC-100 The Learning Center

The Learning Center (TLC) is designed to strengthen academic and social-emotional learning competencies through a Universal Design for Learning-Based Curriculum. The three units of study each year are Communication Skills, Social-Emotional Learning, and Academics for the Diverse Learner. The content of the units is rotated on a three-year cycle and further differentiated to the needs and age level of the individual classes. The course utilizes a center-based approach where students have a main teacher but are also able to utilize all teachers in the center as needed. Students work on executive functioning skills through personalized short-term and long-term goal setting and progress monitoring. A major emphasis is placed on the "how-to" of learning which helps advance student metacognition. Students are led to discover a customized "formula for academic success" based on identifying their signature strengths and implementing strategies for managing areas of academic weakness. Subject area course work is used to reinforce the strengthening of skill areas which is further supported by extra assistance and feedback from classroom teachers. Cultivating resilience and self-advocacy skills are primary goals for all TLC students since the ultimate objective for every TLC student is to increase learning independence.

VISUAL & PERFORMING ARTS

Middle School Visual & Performing Arts Courses:

VPA-040 Explorations in Art

In this project-based course, students will work with a diverse array of media in both two and three dimensions. Two-dimensional lessons may include drawing, painting, collage, printmaking, and graphic design. Three-dimensional lessons may include ceramics, recycled sculptures, installation art, and wire sculptures. Students will learn how to express themselves creatively while using the Elements and Principles of Design as a foundation. The goal is to foster a passion for the arts.

VPA-070 MS Theater

This course will introduce students to all elements of theater. Students will work on small ensemble performances, individual performances, musical theater, set design and construction, lights, and sound. This course provides a foundation for anyone interested in future theater work.

VPA-75 MS Rock Band

Students enrolled in this class will explore a variety of rock and pop music. They will have an opportunity to learn new instruments and expand on their current musical skills. Students in this class will be expected to perform several times during the school year.

VPA-110 Choir

This course is open to all students interested in group vocal music. Choir rehearsals focus on developing individual vocal technique, basic notation skills and on-stage performance skills. Choir is a performing ensemble that prepares varied choral literature for performance at Vespers, the Winter Concert, and the Spring Concert. *Please note: This course is scheduled during L-Period. Students who participate earn half a credit per term.*

Upper School Visual & Performing Arts Courses:

VPA-100 Studio

This course is for students with an interest in exploring visual art in a variety of materials and techniques, both two- and three-dimensional. The course accommodates students of various abilities and experiences. Students learn vocabulary and concepts appropriate to different units of study, complete a series of material-based projects, begin to develop a personal artistic vision, and learn the critiquing process.

VPA-101 Ceramics and Sculpture

This course in three-dimensional artwork is designed as an introductory-level studio course and has no prerequisite. Students of all abilities and experience are welcome. The majority of projects are completed in clay, although occasional forays into other 3-D forms and materials may be included. Students experience a variety of forming methods, are introduced to the work of well-known artists, and work both independently and collaboratively. Sensitivity to the materials and to aesthetic design and the imaginative use of materials is expected. Instruction is by lecture, critique, and demonstration of procedures and skills.

VPA-106 Photography

This six-segment course will introduce students to digital photography, wet photography, videography, animation, graphic design, and a student-choice project. Students are expected to have a device for digital photography (iPhone or iPad).

VPA-110 Choir

This course is open to all students interested in group vocal music. Choir rehearsals focus on developing individual vocal technique, basic notation skills and on-stage performance skills. Choir is a performing ensemble that prepares varied choral literature for performance at Vespers, the Winter Concert, and the Spring Concert. *Please note: This course is scheduled during L-Period. Students who participate earn half a credit per term.*

VPA-111 Vocal Arts

This course explores both vocal technique and music history with an appreciation of the power of music to preserve culture and be a catalyst for change. Students will study recording and performing vocal music that both connects and illuminates the human experience. Each term culminates in a recording or performance with students aiming to develop comfort performing both for an audience and for recordings. Interested students should be open to sharing their vocal talents and developing them throughout the year.

VPA-131 Music Composition

Music Composition is a project-based year-long music elective offered to Upper School students. This course centers around expanding musical creativity through songwriting and musical immersion. Students will learn elements of musical form, transition, and song construction. Students will engage in listening assignments and song analysis in order to understand musical elements by genre. The goal is for students to build a detailed portfolio of original compositions that demonstrates growth.

VPA-150 Theater Intensive

This year-long course for new and experienced theater students will expose participants to all elements of theater. Students will work on small ensemble performances, individual performances, musical theater, set design and construction, lights, and sound. This course provides a foundation for anyone interested in future theater work.

VPA-200 Honors Advanced Studio Art This Upper School elective accommodates students who have spent significant time in the studio either here or at previous schools. It includes the preparation of a portfolio, which may be sent to colleges. Work is highly individualized to meet the needs of the student, and in some cases, projects may fulfill the admission requirements of a specific school. Most often, assignments complete the individual's portfolio. A faculty member assists students in photographing and presenting their work.

VPA-201 Honors Advanced Ceramics and Sculpture This Upper School elective is taught in tandem with the introductory-level course. Continuing to develop and refine their skills, students have many opportunities for individual investigation of both form and materials. They develop a series of at least three related pieces, culminating in an opportunity to display their works in the Schumo Gallery.

VPA-210 Jewelry

Students will explore concepts of design, aesthetics, and materials. In particular, students will work with fibers, metal, beads, ceramics, and glass. Class members are expected to receive feedback and iterate their work. Basic materials for the course are at no charge; additional materials for extra projects may incur fees for materials.

VPA-300 Graphic Design and Marketing

This Upper School elective explores the fundamentals of graphic design in print and digital media. Students explore the many types of digital images and their uses; create and manipulate images working primarily with the Adobe Creative Suite. Students are introduced to the Elements and Principles of Design; spatial relationships; typography; and materials and procedures employed in the communication arts industry. Assignments include logo creation, web design, and marketing materials. Students will have the opportunity to create real marketing campaigns for existing businesses or for their own endeavors. This is a project-structured course, with lectures, demonstrations, projects assignments, quizzes, and critiques.

VPA-310 Performance

This course is designed for individuals and small groups of students to refine their performance skills. Students will develop their craft in addition to improving stage presence. Participants will be expected to select and work independently on their performance pieces (all genres acceptable), receive frequent peer and instructor feedback, and publicly perform their repertoire. This course is open to middle and upper school students.

VPA-320 Advanced Jewelry

Building on foundational skills in cold joining and soldering, this advanced course challenges students to refine their craftsmanship and explore more intricate jewelry designs. Emphasizing precision soldering, complex metal fabrication, and creative problem-solving, students will work with brass, copper, and silver while incorporating advanced tools and techniques. Projects will encourage personal expression and innovation, allowing students to push their skills through layered constructions and mixed-metal designs. This course is ideal for those looking to expand their technical abilities and develop a unique artistic voice in jewelry making.

VPA-354 Additive Manufacturing

Additive Manufacturing is more than simply 3D printing. It plays a massive role in global product development and innovation. In this course, students will build, calibrate, and use a 3D printer. They will engage with a broad range of 3D printing applications, potentially including aerospace, aquatic, biomedical, consumer products, and artistry. Throughout these projects, students will build the skills necessary for a culminating project where students will conduct industry research, prototype, and then manufacture a product designed to meet a specific market need or to improve on an existing design.

VPA-400 Honors Advanced Graphic Design and Marketing

This is an Upper School elective for students who have taken the introductory level or have teacher approval and wish to advance their graphic design and marketing skills. Students learn about the theory, history, and practice of graphic design and marketing campaigns. This project-based course meets the individual interests of students and culminates in a student-designed project or set of projects.

VPA-490/491 Advanced Placement Studio Art: 2D Design / Drawing

This course in two-dimensional design or drawing is an elective for advanced art students who have completed at least two years of art classes and/or present a portfolio for review to be admitted. They begin to develop a personal vision and style that is evidenced in their work, consider this work in the context of a larger art community, and examine and discuss the art of both contemporary and historical artists. To prepare for their Advanced Placement assessment, students are informed of the process used by Advanced Placement readers, practice this method in their own critiques, and view examples of student artwork from previous portfolios received by the College Board. After submitting their work to the College Board, students exhibit their artwork in the Schumo Gallery. *Please note: Prerequisite: Completed or concurrently enrolled in Studio Art Intensive, and/or Studio art. Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

VPA-492 AP 3D Art and Design

In this course, students will investigate the materials and design of 3D works. They will individually create a portfolio that will be submitted to the College Board in a digital format. Finally, the students will learn the art of presentation and demonstrate their skills with installations and gallery shows.

NOTE: Visual and Performing Arts courses are not NCAA approved.

WORLD LANGUAGES

World Language Courses:

World Language courses use the American Council on the Teaching of Foreign Languages (ACTFL) to guide student progress and skill development.

WOL-010 Latin Foundations (ACTFL - Novice)

This course teaches students that Latin is alive! Students explore how Latin has influenced the English language and that people truly use Latin every day. A derivative tree project at the beginning reinforces these ideas. The course also illustrates the importance of the Roman gods and goddesses in the ancient world and devotes a significant amount of time to the study of mythology, both Greek and Roman. Although it is an introductory course, students still learn a significant amount of vocabulary and are able to read and create simple sentences with the grammar covered. The course closes with a study of the Roman Empire.

WOL-011 Spanish Foundations (ACTFL - Novice)

This course has no previous experience required with Spanish language learning. Course content includes the introduction and mastery of basic categories of everyday vocabulary and the most frequently used verbs in present and past tenses. The goals of this course are to develop beginning communicative proficiency and cultural awareness. Successful students understand how to pronounce Spanish words and how to use cognates and context clues to develop basic communication skills. Students "learn by doing" in accordance with the department's proficiency-based approach to teaching and learning and the progress indicators set forth by the American Council on the Teaching of Foreign Languages. The Language Department uses the ACTFL can-do statements as guiding indicators for our students' progress within our curriculum sequence. Therefore, by the end of this level, students should be able to present information about themselves as well as communicate and exchange information on familiar topics using memorized words, phrases, and simple sentences. They also develop an awareness of the similarities and differences among the Spanish-speaking cultures of the United States and the Spanish-speaking world. Students are provided with a variety of materials about high-interest topics and situations found in daily living, with attention given to presenting material using instructional techniques appropriate for a variety of learning styles. Daily preparation, attention to detail, accuracy in spoken and written Spanish, and the application of good study skills are emphasized.

WOL-013 Chinese Foundations (ACTFL - Novice)

This course introduces Mandarin Chinese and Chinese culture to students. Students learn to speak and understand basic Mandarin Chinese and become familiar with modern Chinese culture through pop songs and cartoons. Students will learn how to participate in the target language, Chinese, through the comprehensible input method as well as tell and read stories. Students will approach the Novice High proficiency level through the course.

WOL-015 World Language Exploration

This course offers an introduction to Spanish and Chinese. Students learn to speak and understand introductory elements of both languages. This course is preparation for level 1 courses.

WOL-100 Latin I (ACTFL - Novice)

This course provides a base for the study of the fundamentals of Latin grammar and syntax. Students will acquire a large base of Latin vocabulary and will learn to read and understand Latin sentences. Through the study of the many English words derived from Latin, students will increase their own vocabulary in English, as the majority of English words can trace their roots to Latin. They will also acquire a familiarity with and appreciation for the daily life and culture of the Romans. The study of Greek and Roman mythology is a major component of the course. Latin I students are required to take the National Latin Exam in March. Students currently enrolled in another language are also welcome to take Latin as a complement to their existing course. Students should maintain a grade of B or better in their other language courses.

WOL-110 Spanish I (ACTFL - Novice)

This course is an introduction to Spanish, to its pronunciation and intonation, to its basic grammar and idioms, and to an elementary vocabulary. The aim is to develop listening and speaking skills and to acquire a basic level of fluency. The course includes the reading of authentic texts and discussions about the Spanish-speaking world. Students "learn by doing" in accordance with the department's proficiency-based approach to teaching and learning and the progress indicators set forth by the American Council on the Teaching of Foreign Languages. Instruction focuses on communication in real-life and simulated situations. The Language Department uses the ACTFL can-do statements as guiding indicators for our students' progress within our curriculum sequence. Therefore, by the end of this level, students should be able to communicate basic information about themselves, their everyday life, and people they know by using phrases and simple sentences and by asking and answering simple questions. They learn to understand simple questions and statements on familiar topics as well as the main topic of conversations they overhear. They are also able to read and understand notices, schedules, signs, and simple texts in the target language.

WOL-130 Chinese I (ACTFL - Novice)

This class introduces the language and culture of China. Studying Mandarin Chinese and learning simplified characters enable students to communicate with the greatest number of Chinese-speakers. Students also gain insight into the growing importance of the Chinese language in today’s rapidly changing world, and China’s new position as an economic power. New vocabulary and structures are primarily mastered through games and activities involving movement. Hard work and memorization skills are essential, as students often learn 12 or more difficult Chinese characters a week. Students will approach the Novice High proficiency level through the course.

WOL-200 Latin II (ACTFL - Novice)
This course continues the study of the fundamentals of Latin grammar and vocabulary. Students will read at an increasingly sophisticated level and will begin to translate adapted selections from the Classical authors. They will continue to enhance their own vocabulary with knowledge of Latin suffixes, prefixes, and roots, and they will further their study of Roman culture and literature. Throughout the year, they will meet Odysseus, Aeneas, and other Greek and Roman heroes. Students continue to acquire Latin vocabulary, with an emphasis on English derivatives, to further complement their vocabulary. Latin II students are required to take the National Latin Exam in March. Prerequisite: C- or better in Latin I and approval of Latin I teacher.

WOL-210 Spanish II (ACTFL - Novice)
This course, taught primarily in Spanish, focuses on further developing the four basic language skills (listening, speaking, writing, and reading) through various thematic units. Centering around the individual, these units cover such topics as daily routines, health & fitness, and household responsibilities, with an emphasis on communicating in practical, everyday situations. In addition to exploring more in-depth and advanced grammar topics, the content encourages students to think globally and make connections with Spanish-speaking cultures around the world. In accordance with the department's proficiency-based approach of teaching and learning, students "learn by doing." The Language Department uses the ACTFL can-do statements as guiding indicators for our students' progress within our curriculum sequence. Therefore, by the end of this level, students should be able to start, maintain and end a simple conversation on a variety of familiar topics, express needs, wants, and preferences on topics of interest, write about their daily life and understand messages and simple statements on everyday topics.

WOL-230 Chinese II (ACTFL - Novice)
Students must show they have mastered the basics of Chinese I before entering Chinese II, in which they dive deeper into the language and develop the ability to communicate at a basic level through both spoken and written Chinese. Board games are often used to facilitate the enjoyment of learning this difficult language as well as the retention of a large base set of characters. Students will approach the Intermediate Low proficiency level through the course.

WOL-300 Latin III (ACTFL - Intermediate)
While students in Latin III continue to review and study Latin grammar and construction, they will read and analyze increasingly complex passages at an accelerated pace. Students will read selections in both prose and poetry from the Classical authors and, depending on the interests of the class, will read passages from Ovid, Livy, Pliny, Vergil, Caesar, and Catullus. When reading Latin texts, students will learn to recognize literary figures of speech, identify the metrical components, and expand their Latin and English vocabulary. This class is often taught in conjunction with Latin IV. Latin III students are required to take the National Latin Exam in March.

WOL-310 Spanish III (ACTFL - Intermediate)
This course, taught primarily in Spanish, prepares students to excel in upper-level high school Spanish courses through engaging reading, writing, listening, and speaking activities. The focus of the course is divided between grammar and vocabulary and exploring the culture. Students explore aspects of modern and ancient cultures from Spanish-speaking countries and territories.

WOL-330 Chinese III (ACTFL - Intermediate)
Students must show they have mastered the material in Chinese II before entering Chinese III, in which they broaden their ability to communicate by mastering language related to a large number of practical settings. Chinese idiomatic expressions are studied. Students will approach the Intermediate Mid proficiency level through the course.

WOL-400 Honors Latin IV (ACTFL – Intermediate)
After a thorough review of Latin grammar which will allow Latin IV students to refine their understanding of Latin structure and syntax, students will read selections in both prose and poetry from Roman authors at an accelerated pace. Although Latin IV is often taught in conjunction with Latin III, the content of the course alternates so the selections will not be the same as those of the previous year. Latin IV students will be responsible for additional assignments and readings that will enhance their reading abilities and expand their knowledge of Latin literature. Latin IV students are required to take the National Latin Exam in March.

WOL-410 Honors Spanish IV (ACTFL - Intermediate)
This class prepares students for college-level Spanish courses by helping them develop higher-level proficiency in all language-related skill areas while increasing their knowledge of and appreciation for the cultures of the Spanish-speaking world. This course reviews and expands upon major grammar concepts and increases vocabulary through creative independent and collaborative projects and creative writing.

WOL-430 Honors Chinese IV (ACTFL - Intermediate)
This class prepares students for college-level Chinese courses by helping them develop Intermediate High proficiency in all language-related skill areas. Lessons introduce a wide range of cultural and societal issues, which are explored in more depth during the AP course. Students use interpersonal and presentational skills to explore Chinese culture while developing a lexicon.

WOL-490 Advanced Placement Latin (ACTFL - Intermediate High)
This course is open to qualified students by recommendation of the World Languages Department and prepares them to take the Advanced Placement Latin exam. In this course students spend most of their time translating the required lines of Vergil's Aeneid, constituting excerpts from books I, II, IV, and VI, as well as sections of books I, IV, V, and VI of Caesar's De Bello Gallico. In addition to examining the Aeneid story, from both a historical and mythological point of view, and learning new vocabulary and phrases, which must be memorized for the AP exam, students analyze Vergil's meter, structure, grammar (especially his famous irregularities), and poetic devices. They also search for parallels between the Aeneid and Homer's Iliad and Odyssey. Considering the enormous number of lines that need to be translated and mastered, taking WOL-400: Latin IV Honors prior to this course is highly recommended, though it is not a prerequisite. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

WOL-491 Advanced Placement Spanish Language and Culture (ACTFL - Intermediate High)
This course is open to students who have completed Spanish IV, who have performed well in previous Spanish courses, and who receive permission from their current Spanish teacher and the head of the World Languages Department. The class provides comprehensive preparation for the AP Spanish Language and Culture exam as well as for intermediate-level college Spanish courses. In this course, students develop written and oral proficiency in order to compare and make connections with the language, cultures, and communities of the Spanish-speaking world. Speaking and writing focus on interpersonal, interpretive, and presentational forms of communication. The course also aims to improve students' awareness and appreciation of cultural aspects of the Spanish-speaking world with authentic readings and audio/video programs. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

WOL- 493 Advanced Placement Chinese Language and Culture (ACTFL - Intermediate High)
This course is open to qualified students by recommendation of the World Languages Department and prepares them to take the Advanced Placement Chinese Language and Culture exam. The goal of this course is to continue to develop the interpretive, interpersonal, and presentational skills of intermediate Chinese learners. Extensive readings and media exploration in Chinese prepare students for communication-based assessments. In order to meet standards set by the College Board, lessons are based on cultural, societal, or historical discussion topics. Relevant television and film screenings and interaction with native speakers on campus reinforce the relevance and importance of these cultural topics while helping to prepare students for the required AP exam. *Please note: Students who sign up for AP classes are agreeing to take the AP exam at the end of the year. Exam fees may apply.*

ADVANCED PLACEMENT COURSES

Perkiomen School offers a wide range of Advanced Placement (AP) courses. An Advanced Placement course is a college-level class offered in high school, allowing students to study material typically covered in a first-year university course while still in secondary school, with the opportunity to earn college credit by passing a corresponding AP exam at the end of the year. Students enrolled in AP courses are required to take the exam. If a student is not enrolled in the course, they may not study independently and take the exam at Perkiomen School. If the school does not offer a course, students may take the AP exam at Perkiomen.