

ARTS

MUSICAL ARTS

Arts: Chorus

Credits: 1.0 for the school year
Grades: 9, 10, 11, 12, PG
Homework: Practice at your own pace

Description

Students develop their individual vocal technique, music-reading proficiency, and ensemble skills through singing music in a variety of styles. The group performs three major concerts each year as well as at the annual Vespers celebration.

Arts: Orchestra

Credits: 1.0 for the school year
Grades: 9, 10, 11, 12, PG
Homework: Practice at your own pace

Description

This course is for players of all instruments who participate in Full Orchestra as well as Concert Band, String Orchestra, Chamber Orchestra, Chamber Music Ensembles, Jazz Band, Percussion Ensemble, and Guitar Ensemble. Students work to develop their individual instrumental skills as well as their ensemble skills. Orchestra presents three major performances each year.

Arts: Music Foundations

Credits: 1.0
Grades: 9
Homework: Minimal

Description

Focusing on the development of perceptual and technical skills, this course gives students a basic knowledge of music and its role in our lives. Through exposure to a variety of musical styles, students learn about elements of music, develop a working music vocabulary, and learn to read music. In addition to listening to and analyzing music, students compose and perform original compositions with their classmates, laying the groundwork for further study.

Arts: AP Music Theory

Credits: 3.0
Grades: 10, 11, 12
Prerequisite: Musicianship I and Permission of the Department

Notes: Students taking this course are required to sit for the AP Music Theory exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Significant

Description

This course is for experienced music students who want to develop their creative skills while preparing to take the AP Music Theory exam. Topics include figured-bass realization, four-part voice leading, form and analysis. The course emphasizes the mastery of aural skills, including rhythmic, melodic, and harmonic dictation, as well as sight-singing.

Arts: Musicianship

Credits: 1.0
Grades: 9, 10, 11, 12, PG
Homework: Minimal

Description

This course supports students interested in vocal or instrumental performance (especially those participating in Peddie's Chorus and Orchestra!) It will develop and support such valuable skills as reading music, learning musical notation, and building a musical vocabulary. This course is a prerequisite for AP Music Theory. (Students who demonstrate exceptionally strong skills in this course may be eligible to take AP Music Theory the following year.)

THEATER ARTS

Arts: Actors Studio I

Credits: 2.0
Grades: 10, 11, 12, PG
Notes: Two term course (fall and winter)
Homework: Minimal

Description

This class builds on the skills learned in Theater Foundations, and is open to any student who would like to learn more about acting for the stage. In the first term, students learn how to prepare a role, to create a character and to analyze dramatic text. Classes will include improvisational games, acting exercises and will culminate in the performance of scenes taken from contemporary dramatic literature. In the second term, students will delve deeper into the physical world of character development, utilizing techniques that lead to strong and interesting choices, as they unlock the pathways to more dynamic and authentic dramatic performances. As such, students will experience a wide range of dramatic material, acting styles, and performance considerations. They will explore a variety of techniques including the work of Uta Hagen, Viola Spolin, and Michael Chekhov to name a few.

Arts: Freshman Musical

Credits: 1.0
Grades: 9
Homework: Minimal

Description

This course is designed to provide an additional performance opportunity for our younger students interested in musical theater while developing their skills and enhancing their confidence. Enrolled students spend the first few days building their confidence as an ensemble while playing theater games and learning the storyline and songs of a junior version of a popular musical. Auditions follow after which all members of the course are cast in the play. During each class for the remainder of the fall term, the ensemble meets with the directors and choreographer to rehearse. Unlike other drama productions which are extracurricular, all rehearsals for the Freshman Musical will happen during the regularly scheduled class period. These efforts culminate in a one-night performance for the Peddie community.

Arts: Set Design

Credits: 1.0
Grade: 10, 11, 12, PG
Homework: Minimal

Description

How does a set designer conceptualize a play? How does a set designer work with a director? And how about the lighting, costume, and sound designers? What about the practical considerations such as budget, space, and time? This course is a how-to for anyone interested in learning the basics of set design for the theater. We will sketch, draft and build models to help us understand a set designer's process. We will welcome professional designers for guest lectures, lessons, and critiques. We will develop our unique sense of design through a series of physical projects, and the course will culminate in the creation of a design for a Peddie Mainstage production!

No previous experience necessary.

Arts: Speech & Debate I

Credits: 1.0
Grades: 10, 11, 12, PG
Homework: Minimal

Description

This course focuses on public speaking and introduces students to the principles of Public Forum Debate, with an emphasis on effective research, active listening, and varying persuasion techniques. Examples of great public speakers throughout history are explored, and vocal projection, and body language are emphasized. Students leave the course with a greater confidence in their ability to think critically and speak persuasively.

Arts: Stage Production

Credits: 1.0
Grades: 11, 12
Prerequisite: Previous performance in a musical and Permission of the Department
Notes: Course size may be limited
Homework: Significant

Description

Experienced students who are interested in exploring leadership roles in the theater will serve as stage managers, assistant directors, and assistant choreographers for the freshman musical. Students with significant dance or music background are especially encouraged to apply.

Arts: Honors Theater Ensemble

Credits: 3.0

Grades: 12

Prerequisite: Application process in the spring term of junior year
Previous involvement in theater courses and/or extracurricular performances (plays, musicals, speaking contests) will also be considered in selecting an ensemble.

Homework: Significant

Description

Working together as a theater company, students explore advanced acting techniques, text analysis, directing, playwriting, movement, and vocal production in the first half of the year. During spring term, students produce, direct, design and perform in a One-Act play festival. Through the exploration of creative challenges, students emerge as more well-rounded theater artists. (Honors Theater Ensemble is the culminating course for a student interested in our Signature Program in the theater arts.) This course involves a significant time commitment beyond class meetings.

Arts: Theater Foundations

Credits: 1.0

Grades: 9

Homework: Minimal

Description

Theater Foundations serves as a comprehensive introduction to the dramatic arts, with an emphasis on developing a student's speaking abilities, creativity, and overall theatrical awareness. As such, this highly-collaborative course utilizes exercises in vocal production and diction, improvisation, American-style "method acting," creative writing, and play analysis. Students also explore playwriting, directing, film, theater history, technical theater, and public speaking.

VISUAL ARTS

Arts: Architecture I

Credits: 2.0

Grades: 10, 11, 12, PG

Notes: Two-term course (fall and winter)

Homework: Moderate

Description

We spend most of our lives in buildings. We make our homes in them. We go to school, work, and dream in them. But why and how did architects start making buildings? How did they learn to make them stronger, bigger, and more beautiful? In this course we will develop the ability to deconstruct and purposefully critique architecture around us. From Frank Lloyd Wright's *Fallingwater* to Le Corbusier's

Ronchamp Chapel, we will learn the stories of dozens of remarkable buildings and the architects who designed them. We will also develop skills in freehand and architectural drawing, computer-aided design, and model-building as we respond creatively to architectural challenges.

Arts: Drawing

Credits: 1.0
Grades: 10, 11, 12, PG
Homework: Moderate

Description

This course is perfect for both the beginning artist (even one who "cannot draw a straight line!") and the experienced art student. Students will explore many drawing techniques using a range of materials including pencil, charcoal, pastel, ink, and watercolor. Challenging design problems and drawing assignments inspired by still-life, landscape, interior, and the human body will guide this process. Learning fundamental principles, (for example, color theory and two-point perspective), will be balanced with an ongoing emphasis on developing personal creativity and risk-taking. Slide presentations of both historical and contemporary artists, a museum visit, and frequent discussions of student work will inspire and encourage artistic growth.

Arts: Film and Video I

Credits: 2.0
Grades: 10, 11, 12, PG
Notes: Two-term course (fall and winter)
Homework: Moderate

Description

In Film and Video students are exposed to the process of producing short films from pitching a story, to scriptwriting and storyboarding, planning, and casting, shooting video, capturing audio, and editing it all together. In the first term composition and camera fundamentals are stressed. During the course, students make increasingly complex films culminating in a festival-ready five minute short. Student filmmakers will spend a day in New York City shooting footage for a montage story about the city. Additionally, the class will view many short films and feature length theatrical films to provide insight into the use of light, sound, and shot composition.

Arts: Mixed Media

Credits: 1.0
Grades: 10, 11, 12, PG
Homework: Moderate

Description

Inspired by personal memories and dreams, fairy tales and current events, students will construct two- and three-dimensional artworks, experimenting with a wide range of materials, both traditional (watercolors, color pencils, wire, clay) and untraditional ('found objects' and recyclables, for example). Among the projects we may undertake are an imaginative mask, an artist's book, a colorful mobile, an autobiographical installation... This class is a great next step for a student who has taken Drawing or

Painting, but no previous experience is required, just a willingness to be playful, thoughtful, and resourceful as together we push the conventional boundaries of art.

Arts: Painting

Credits: 2.0
Grades: 10, 11, 12, PG
Notes: Two-term course (fall and winter)
Homework: Moderate

Description

This course is an introduction to the fundamentals of painting with acrylics. Students learn to mix colors and create a sense of form, light, and depth on the canvas as they work from observation, using the still-life, landscape, and other works of art for inspiration. The course encourages students to be playful and take risks with their work, experimenting with scale, paint application, and subject matter. Open to all students, this course does not have a prerequisite, although a previous course in drawing would be helpful.

Arts: Photography I

Credits: 1.0
Grades: 10, 11, 12, PG
Homework: Minimal

Description

This course introduces the basics of photography as an art form. Students learn to operate a digital SLR (single lens reflex) camera and to edit in Adobe Photoshop. Early assignments emphasize an understanding of light, composition, and the creative potential of camera functions. Later assignments explore portraiture, creating visual narrative, and street photography. Peer critiques and frequent discussions about photographs by historical and contemporary photographers, as well as media images, provide critical feedback and inspiration. We ask students to provide their own digital SLR cameras whenever possible. (Digital SLR cameras are available for loan through the arts department.)

Arts: Photography II

Credits: 1.0
Grades: 10, 11, 12, PG
Homework: Minimal

Description

This course is an opportunity for students to sharpen the technical and conceptual skills they began to develop in Photography I. Projects include investigations of landscape, personal narrative, documentation, and form, as well as further exploration into color theory and black and white photography. Students will utilize Adobe Lightroom as their daily software platform and the class will include digital manipulation with Adobe Photoshop. In addition, students are exposed to the work of contemporary artists who are using photography to address political, social, and philosophical issues. We ask students to provide their own digital cameras whenever possible. (Digital SLR cameras are available for loan through the arts department.)

Arts: Honors Studio Art

Credits: 3.0
Grades: 12
Prerequisite: Permission of the Department
Homework: Significant

Description

This is Peddie's Signature course in the Visual Arts – our most advanced and independent offering. It begins with an intensive series of exercises designed to encourage creative thinking. At the beginning of the winter term each student defines a personal concentration to explore in depth for the remainder of the year. The course is designed for self-motivated and resourceful students who are willing to push themselves beyond the limits of conventional art and to engage in rigorous dialogue about their work. In addition to individual meetings with the instructors, students will gather regularly for group critiques and presentations about contemporary artists for inspiration. Students exhibit their work in the Honors Thesis Exhibit in May.

Arts: AP Art & Design - 2D or Arts: AP Art & Design - 3D

Credits: 3.0
Grades: 10, 11
Prerequisite: At least two visual arts electives completed
Note: Students taking these courses are required to submit the AP portfolio. Parents are responsible for the associated College Board fee and will be billed by Peddie during the spring term. Students must choose between submitting a 2D or 3D portfolio.
Homework: Significant

Description

AP Art & Design comprises two different portfolios, defined by medium and format: 2-D Art and Design and AP 3-D Art and Design. 2-D Art and Design includes all 2D media such as painting, drawing, photography, and others, and students have the opportunity to explore a range of these media. Because these are year-long, introductory college-level classes, they are designed for 10th and 11th grade students who already demonstrate serious interest in and commitment to visual art. During the fall term, students will experiment with materials, learn new technical skills, and practice evaluating and revising their efforts. In winter and spring terms, each student will build a portfolio of images that investigates a self-selected theme - a *Sustained Investigation*. By viewing and discussing contemporary art, participating in peer critiques, visiting museums and galleries and meeting with professional artists, students will deepen the conceptual strength of their artwork and learn more about how the contemporary art world functions. Each course culminates in the submission of a digital portfolio for review by the College Board. In order to participate, students must demonstrate independent work habits by completing and submitting the summer homework - four new "portfolio-ready" artworks that fulfill the assignment objectives.

Arts: Visual Arts Foundations

Credits: 1.0
Grades: 9
Homework: Minimal

Description

This introductory course provides a foundational experience in the art of seeing and the fundamental principles of studio art in a supportive and creative environment. Projects in drawing, collage, painting, and photography encourage meaningful self-expression for both the novice and experienced art student. While building technical skills and an understanding of color, composition, and other design fundamentals, students work both from imagination and observation. They develop critical thinking skills while interpreting each other's work and offering peer feedback. Additionally, all Visual Arts Foundations classes visit the Metropolitan Museum of Art to make studies of artworks through sketches and short essays.

Arts: Visual Arts Foundations (Digital Media Track)

Credits: 1.0
Grades: 9
Homework: Minimal

Description

This introductory course provides a foundational experience in the art of seeing and the fundamental principles of studio art and media production, in a supportive and creative environment. Projects in digital photography and video as well as exercises in drawing and collage, build technical skills and an understanding of color, composition, and other design fundamentals while encouraging creative expression. Image editing software is introduced and employed during the design process. Students develop critical thinking skills as they offer peer feedback and interpret images drawn from popular media. Class discussions examine the evolving role of visual media in our contemporary world -- how imagery functions on the internet and on social media as well as in museums. Additionally, all Visual Arts Foundations classes visit the Metropolitan Museum of Art to make studies of artworks through sketches and short essays.

ENGLISH

Eng: AP English Literature

Credits: 2.0

Grades: 11

Notes: Required for all 11th Grade students (choose one of the following)

This course will appear on the transcript as *Eng: AP English Literature*

Students taking this course are able to sit for the AP English Language exam. If a student sits for the exam, parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Moderate

Moral Dilemmas in American Literature

Often our decisions reveal our values and our experiences. With this lens, students will examine a variety of topics in American literature, illustrated by characters with diverse backgrounds, voices, and perspectives. These readings, which include different genres, have been selected to help students come to an understanding of how these topics may be impacting their own lives. While developing close critical reading and writing skills, students will discover more about the (literary) history of the United States as well as the moral dilemmas that have influenced America and the students' own identities.

Historical Fiction

This course will investigate fiction that explores events, people, and ideas throughout American History, with a particular focus on America's multicultural and multiracial historical and literary traditions. The course's topics will loosely align with Peddie US History courses throughout the fall and winter, and we will read fiction for not only its human and literary resonance, but also its historical arguments and allegories.

The Secrets of Nature

This course will explore literature of the natural world and the impact nature (and our relationship with it) has on our well-being. We will read essays, short stories, poetry, and two novels. In addition, we will engage in mindfulness practices within and with the help of nature.

Homework: Moderate

Because this course is required, students have the option of taking the AP English Language exam. Peddie recommends students who wish to sit for the exam take the Language Exam in their junior year. Students should speak with their teachers and contact the Registrar in September if they wish to register for the exam. If a student sits for the exam, parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Eng: English 9: Literature of Community and Citizenship

Credits: 3.0

Grades: 9

Notes: Required for all 9th Grade students

Homework: Moderate

Description

This class will study literature, poetry, and art that helps us better understand individuals' relationships with the various communities of which they are a part (familial, national, global, etc.). In doing so, this course will help students consider their own role as community members here at Peddie and in the world at large.

As part of this course, students will not only develop the necessary academic skills for this exploration - active reading; analytical, creative, and personal writing; the drafting and revision process - but also those skills necessary for "the highest quality of citizenship" - the development of one's moral sense; a sense of responsibility and accountability; the ability to engage in constructive dialogue and conversation with others.

Eng: English 10: Literature and Composition

Credits: 3.0
Notes: Required for all 10th Grade students
Grades: 10
Homework: Moderate

Description

This seminar-style course focuses on the study of a variety of genres, and builds on the skills learned in 9th grade English necessary for close reading of and critical writing about fine literature. Readings will include short fiction, novels, drama and poetry, and will be anchored by selections read across all sections. Students will develop critical thinking and writing skills throughout the year, and will engage in comparative writing during Spring term."

Eng: Senior Seminar in Contemporary Literature

Credits: 2.0
Grades: 12, PG
Notes: Required for all 12th Grade and PG students (choose one of the following)
Homework: Moderate

The Distracted Globe

In this course we will consider the art and practice of writing fiction in the 21st century. A quarter way through the 21st century, our globalizing world is facing multiple challenges whose kind and degree were previously unimaginable: climate change, the Internet, genetic engineering, religious extremism, human migration, endemic war, democratic collapse, etc. We will read novels written in and/or translated to English from 2000 to the present that describe and reflect upon how our lives have been radically upended by the convergence of proximate and distant realities and histories.

Reckless Libertines

This course will explore how literature helps us better understand identity's influence on romantic and intimate relationships. We will move somewhat chronologically, beginning with Shakespeare's *Hamlet* to examine how fiction (and theater, specifically) explored relationships in Elizabethan times. We'll shift to short stories for the remainder of the Fall term to efficiently cover many perspectives, styles, and ideas. In our December "Interwinter" we'll read James Baldwin's novella *Giovanni's Room* to consider how some of the ideas we have been discussing are dealt with in a (relatively) longer work. When we return in January, we will examine more contemporary short stories. In the second half of the Winter Term, you will also work on your Senior Thesis, the capstone English assignment for Peddie students.

Stay, Illusion!

“I don’t believe in ghosts,” the writer Edith Wharton once asserted, “but I am afraid of them.” This course will explore various iterations of ghosts and spirits in literature and film. We will examine how apparitions function in these narratives: how they demand personal and societal justice; reflect characters’ guilt and rage; and explore the undiscovered country, what happens after death. Our core texts will include *Beloved*, *North Woods*, and *Hamlet*; we’ll also study short works by a range of authors and explore the various creative uses of the undead, ghouls, and spirits.

Eng: Creative Writing Signature Experience I & II

Credits: 1.0
Grades: Sig Exp I – 11 only
 Sig Exp II – 12 only
Notes: Only available to Signature Experience students
Homework: Moderate

Description

Goal: To paraphrase Christopher Busa, editor of Provincetown Arts magazine and Provincetown Arts Press, our goal is to create, with words, an alternative reality that most people find more compelling than conventional reality (at least temporarily).

Plan: We’ll read, discuss, write, listen, speak, revise, repeat. As Francine Prose claims, “. . . the advantage of reading widely, as opposed to trying to formulate a series of general rules [for writing], is that we learn there are no general rules, only individual examples to help point you in a direction in which you might want to go.” So we need to look closely at what stops us in wonder, traps us in marvel, encourages us to gasp or snicker or spit. We may be a long way from creating a string of words that encourages these responses in others, but we all probably want to.

How: We will review and practice basic storytelling elements that appear throughout short fiction, nonfiction, poetry, and dialogue. Students in the class will generate and workshop pieces and sharpen skills such as structure, voice, narration, and description. Second-year Signature students will also develop and revise material from summer work in preparation for their Capstone Project.

HISTORY

Hist: AP Art History

Credits: 3.0
Grades: 12, PG
Prerequisite: Permission of the Department
Notes: Students taking this course are required to sit for the AP Art History exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

This colorful and dynamic approach to history allows us to learn about the past by looking at the most awe-inspiring creations of humankind across the millennia. We study major forms of artistic expression (painting, drawing, architecture, sculpture, printmaking, photography, etc.) from the prehistoric world to the present day, with units on the Ancient Mediterranean; Early Europe and the Colonial Americas; Later Europe and the Americas; the Indigenous Americas; Africa; West and Central Asia; South, East and Southeast Asia; and the Pacific. We learn to analyze works of art within their historical context, considering the ways that such factors as politics, religion, patronage, economics, gender, race, and ethnicity impact artists and the work they make. As we gain a foundational knowledge about artmaking around the globe, the conversation broadens further. Contemplating such themes as images of power, definitions of beauty, humanity's relationship to nature, or narratives about the afterlife, for example, we explore differences and similarities across cultures and time.

Hist: AP European History

Credits: 3.0
Grades: 12, PG
Prerequisite: Permission of the Department
Notes: Students taking this course are required to sit for the AP European History exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

AP European History covers the history of Europe from the High Renaissance through the end of the twentieth century. Students will consider moments in European history that are both relevant and crucial to shaping an informed understanding of our world today.

Woven into the political, economic, and religious revolutions that occurred in Europe, we will examine the roles of women in these major events as well as in daily life. We will study how European people left their continent to first explore and then exploit other areas of the world, and the impact that has had on groups across the globe. We will also study how various people challenged the power of the state and various institutions of power in the areas of gender, race, and class in order to change the world that they lived in.

Hist: Citizenship & the State

Credits: 3.0
Grades: 9

Notes: Required for all 9th Grade students
Homework: Moderate

Description

As ninth graders join their new school community, they experience many of the ideas explored in this course—governance, citizenship, rights, and responsibilities. This course examines how the relationship between governments and the people they govern has evolved over time, tracing key moments in world history that have shaped modern democracy. Students will investigate what it has meant to be a citizen and non-citizen in different societies across time, focusing on how the relationship between people and governments have evolved.

Students will examine historical events and political philosophies that have influenced contemporary governance, with a particular focus on the evolution of democratic principles and citizen participation. They will explore the essential role citizens play in shaping, maintaining, and challenging their government, both historically and in the present day. A key component of this course is introducing students to the tools of the historian: critical reading, analytical writing, research skills as well as learning how to assess sources, build arguments, and become critical consumers of information.

Hist: Modern Global History

Credits: 3.0
Grades: 10
Homework: Moderate

Description

Modern Global History examines the major historical and social trends of the modern era in an attempt to understand the nature and origins of the 21st century world. A primary emphasis of the course considers those historical events and processes that have had a lasting impact on today in order to help students make sense of the rapidly-changing world in which they live. Topics of emphasis in the fall and winter terms include the foundation of modern political systems and industrialization and their impact on changing gender roles and social hierarchies. In addition, we study the impact of evolving political and economic systems through a variety of voices in order to examine the spectrum of power and privilege throughout the world. Closing the winter term, we explore imperialism and world wars and their impact on the various peoples and nations. In the spring term, we will continue to examine events and issues in the post-World War era around the globe which continue to shape the modern world.

Hist: AP United States Government

Credits: 3.0
Grades: 12, PG
Prerequisite: Permission of the Department
Notes: Students taking this course are required to sit for the AP United States Government exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

A full-year study of the formal and informal structures of the American political system, this course prepares students for the AP examination in United States Government and Politics. This course emphasizes contemporary policy making and implementation, as well as an in-depth study of civil rights

and civil liberties and how those have expanded and contracted over time. Students will examine the roles that citizens play in the political process, whether through activism, electioneering, or becoming informed and engaged residents of their communities. The class will analyze various contemporary topics including the criminal justice system, the growth and expansion of the federal government, and the role of media in creating and reinforcing political beliefs and the effects of disinformation on democracy.

Hist: United States History

Credits: 2.0

Grades: 11

Notes: Fall & Winter terms

Required for all 11th Grade students not taking AP United States History

Homework: Moderate

Description

This course examines the origins of the country's contradictions and surveys the complex landscape of American life. In the fall, students engage with the America of the eighteenth and nineteenth centuries. We focus on the country's revolutionary founding as well as the various competing economic systems, including the slavocracy of the American South. The term culminates in the examination of the nation's collapse in the Civil War, and both the successes and failures of the Reconstruction Era. In winter, students examine race, ethnicity, and immigration at the turn of the century onward, building to the modern Civil Rights Movement and its impact on activism for future generations. For their spring term, students choose from a variety of twentieth-century U.S. history electives, including art and culture of the era, political history, and topics in domestic and foreign policy. Throughout the school year, students engage with a vast array of primary and secondary sources, examining the complexity of the American narrative, discussing the human impact of systems and policies, and connecting the past to the present.

Hist: AP United States History

Credits: 3.0

Grades: 11

Prerequisite: Permission of the Department

Notes: Students taking this course are required to sit for the AP United States History exam.

Parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Significant

Description

AP United States History utilizes a survey approach to trace major themes and moments in the history of North America and United States from 1491 to the modern day in preparation of the Advanced Placement exam in May. We seek to examine not only the foundations of American democracy, but also the challenges the country has faced in living up to its founding ideals. The course will explore the idea of what it means to be an American-- who has been included in this definition and who has been excluded at various times--and also examine the growth and role of government in American life. Textbook readings are supplemented by a myriad of primary and secondary sources, both written and visual, which aim to bring multiple perspectives to the historical narrative.

ONE-TERM ELECTIVES

East Asia in the Contemporary World

Credits: 1.0
Grades: 11, 12, PG
Homework: Moderate

Description

This course examines the interactions of East Asian countries with the world, while also evaluating the specific relationships these countries have with each other. The course explores how diplomatic, commercial, military and cultural relationships directed the development of East Asian societies, and will also address historic perceptions of East Asia by the West.

Hist: Modern Middle East: The Arab-Israeli Conflict

Credits: 1.0
Grades: 11, 12, PG
Homework: Moderate

Description

Political turmoil has come to define the Middle East, in particular Israeli-Palestinian relations. By examining the background of the modern Middle East, this course explores what has led to the conflicts and tensions in this region and, particularly, why the Middle East has been plagued by political terror and violence. Novels, historical texts and contemporary media accounts shape the readings for the class.

Hist: Presidential & Congressional Elections

Credits: 1.0
Grades: 10, 11, 12, PG
Notes: Students who have taken, or are taking AP US Government cannot take this course.
Homework: Moderate

Description

This course will focus on the way in which candidates are elected to the U.S. Congress and the presidency, utilizing select historic and contemporary elections as our case studies. Over the course of the term students will evaluate the American electoral system and examine the ways in which voting, and who is allowed to vote, has changed over time. Students will also investigate various policy objectives in political party platforms and the role of parties in the electoral process.

LANGUAGE

Lang: Chinese I

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Homework: Moderate

Description

This course is designed to enable students to communicate in Chinese from the very first day of class. Students develop a solid foundation of Chinese pronunciation through the study of the pinyin system. They learn approximately 400 Chinese characters with basic grammar patterns and conversational expressions. Students' aural-oral skills are reinforced with the use of sound files via the network. They also learn to write simple essays in Chinese. Chinese culture is an integrated part of the Chinese program with an accent on history, art, and calligraphy.

Lang: Chinese II

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Chinese I
Homework: Moderate

Description

Students continue to develop their communication skills in all interpersonal, interpretive, and presentational modes. The use of sound files via the network continues to improve students' aural-oral skills. With the pinyin consolidated, Chinese characters are the focus of the course. An additional 500 characters and key grammar structures are introduced and consolidated. Students expand their knowledge of Chinese culture and history through films, documentaries, and on-line resources.

Lang: Chinese III

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Chinese II
Homework: Moderate

Description

Students continue to develop their language skills of listening, speaking, reading, and writing. The continued use of sound files through the network further consolidates their aural-oral skills. An additional 600 characters are added to their vocabulary list and more advanced sentence patterns are introduced. Cultural knowledge is further refined with individual and group projects on various aspects of Chinese culture. A pen-pal relationship with EFZ, Peddie's first sister-school in Shanghai, China, provides an authentic learning environment for students of both schools.

Lang: Chinese IV

Credits: 3.0

Grades: 10, 11, 12, PG
Prerequisite: Chinese III
Homework: Moderate

Description

Chinese IV is a year of synthesis and refinement of the students' language skills. Chinese is the primary language of the classroom. Students learn an additional 700 Chinese characters and more sophisticated grammar structures and sentence patterns. Frequent essay writing and oral presentations consolidate students' skills both orally and in writing. Individual and group projects using authentic resources are the means to further expand students' knowledge of Chinese culture on its past, present, and future.

Lang: AP Chinese Language & Culture

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Chinese III or Chinese IV and Permission of the Department
Notes: Students taking this course are required to sit for the AP Chinese Language and Culture exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Moderate

Description

This course is comparable to fourth semester college/university courses in Mandarin Chinese. AP Chinese is conducted exclusively in Chinese. The course prepares students to demonstrate their level of Chinese proficiency across the three communicative modes (interpersonal, interpretive, and presentational) and the five goal areas (communication, cultures, connections, comparisons, and communities). In preparation for the AP Chinese Language and Culture exam in May, students will be engaged in performance-based activities within age- and level-appropriate authentic cultural context. As the exam is a paperless Internet-Based Test (iBT), students will use their laptop to process everything (listening, speaking, reading, and writing) in the course.

Lang: Advanced Chinese Language & Culture

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Permission of the Department
Notes: Students may take one, two or three terms of this course and may add it in fall or winter term
Homework: Minimal

Description

Advanced Chinese Language and Culture is offered to Chinese heritage students but also to non-heritage students who have successfully completed Peddie Chinese language level IV or AP Chinese or equivalent course. Through studying Chinese classic and contemporary literature and poem, current events (social issues) and home economics, films and arts, students will gain deeper understanding of Chinese culture and tradition, sharpen their language skills, as well as develop their global competence. Although this is a year-long course, it will focus on a different topic each term. Authentic materials will be used as the primary learning resources and students are expected to use the target language in class all the time.

Lang: French I

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Homework: Moderate

Description

Students develop the four basic skills of speaking, writing, listening, and reading and are introduced to francophone culture. The main objective in the classroom is effective communication and language comprehension. Students are encouraged to actively take risks and make mistakes in order to develop their language skills. In addition, students interact with each other regularly in partner and group activities using authentic resources and technology. Thematic units, highlighting francophone culture, present grammar, and vocabulary. As the year progresses, French becomes the principal language in the classroom. French I lays the foundation for students to attain success in the upper levels.

Lang: French II

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: French I
Homework: Moderate

Description

Students continue to develop the four language skills of speaking, writing, listening, and reading and build upon the foundation of French I in order to add complexity to their expression and comprehension. The main objective in the classroom is effective communication and language comprehension. Students are encouraged to actively take risks and make mistakes in order to develop their language skills. In addition, students interact with each other regularly in partner and group activities using authentic resources and technology. Thematic units, highlighting francophone culture, present grammar and vocabulary. French is the principal language of the classroom. French II lays the foundation for students to attain success in the upper levels.

Lang: French III

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: French II
Homework: Moderate

Description

This course further develops the four basic language skills of speaking, writing, reading, and listening. French is the primary language of the classroom, and students interact with each other regularly. Students strengthen comprehension and build upon language skills through class discussions and debates derived from authentic resources. Frequent use of podcasts and music exposes the students to contemporary cultural material. French III completes the foundational study of the language and prepares students to achieve a higher level of proficiency in expression and comprehension.

Lang: French IV

Credits: 3.0

Grades: 9, 10, 11, 12, PG
Prerequisite: French III and Permission of the Department
Because students in French IV will draw on co-curricular knowledge and will discuss themes that require a mature approach, this class is recommended for students in 10th, 11th, 12th, and PG grades.
Homework: Moderate

Description

This course is designed to build on the material learned at the previous levels, to reinforce student's knowledge of language structures while adding sophistication. It focuses on different facets of francophone culture and history, and actively expands vocabulary and interpersonal communication skills. All course activities are conducted in French and cover all language skills. Students conduct research projects that culminate with oral presentations and debates, and improve their comprehension skills with authentic material from francophone sources, and their writing skills through essay writing.

Lang: AP French Language & Culture

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: French III or French IV and Permission of the Department
Notes: Students taking this course are required to sit for the AP French Language and Culture exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Moderate

Description

In this upper-level course, students continue to develop the four basic language skills of listening, speaking, reading, and writing. This course requires a strong background in French. Students are expected to supplement their skills outside of class by reading current events, listening to French, and communicating with their classmates. The course covers a broad range of themes such as beauty, technology, environmental issues, family and community life, education, and migration in the Francophone world. Students will prepare for the Advanced Placement language examination through oral and written activities that treat the above topics. Reading selections will range from poems and song lyrics, to articles and literature, while listening selections will include a variety of sources such as songs, movies, podcasts and current events from the French news. The course is conducted solely in French and requires active participation.

Lang: Latin I

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Homework: Moderate

Description

After a review of English grammar, students are introduced to Latin nouns of the first, second, and third declension, the verb system, and English vocabulary derived from Latin roots. This is done alongside translating stories about daily Roman life in 64 C.E. that develop confidence and precision in reading. Students in the winter term learn the remaining cases, tenses, and adjectives and follow a diverse cast of characters through their travels around the expansive Roman Empire. Imperatives, infinitives, relative clauses and pronouns, and the passive voice are covered in the spring term. Students participate in

discussions about entertainment, mythology, Roman life and customs, art, and architecture, and rural versus urban living through primary sources in translation.

Lang: Latin II

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Latin I
Homework: Moderate

Description

The fall term consists of a thorough review of first-year material and introduces the following grammar: participles, irregular and deponent verbs, and nouns of the fourth and fifth declensions. For the remainder of the year students will study ablative absolutes, various clauses, comparative adjectives and adverbs, and subjunctive verbs and their uses. Readings in Latin will focus on Roman politics, entertainment and leisure activities, and life in Pompeii and in Ephesus.

Lang: Latin III

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Latin II
Homework: Moderate

Description

The fall term covers a review of second-year grammar and introduces students to different Latin literature from various genres and time periods. Throughout the year, students will continue to learn new pieces of grammar as well as focus on developing their Latin reading skills. Discussions will involve themes and topics from the Roman world, such as amor (love), natura (nature), imago (representation), migratio (migration), mores (customs), avaritia (greed), urbs (the city), and imperium (power). These discussions will include both primary source texts and those in translation.

Lang: Latin IV

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Latin III
Homework: Moderate

Description

A survey of Latin literature includes some but not all of the following authors, each presented in their cultural, historical, and literary setting: Livy, Catullus, Pliny, Ovid, Julius Caesar, Cicero, and Vergil. Topics covered will include stories from early Roman history, Latin poetry, the eruption of Mt. Vesuvius, famous Roman speeches, and the Roman view of the underworld.

Lang: Latin V

Credits: 3.0
Grades: 9, 10, 11, PG

Prerequisite: Latin IV, AP Latin or Permission of the Department
Homework: Moderate

Description

A survey of Latin literature including some, but not all, of the following authors, each presented in his cultural, historical, and literary context: Lucretius, Cicero, Catullus, Horace, Livy, Ovid, Martial, Pliny.

Lang: AP Latin Vergil & Caesar

Credits: 3.0
Grades: 11, 12, PG
Prerequisite: Latin III or Latin IV and Permission of the Department.
Notes: Students taking this course are required to sit for the AP Latin exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Moderate

Description

Preparation for the Advanced Placement examination in Latin through reading and study of the required texts from Vergil's Aeneid and Caesar's De Bello Gallico.

Lang: Spanish I

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Homework: Moderate

Description

Students develop the four basic skills of listening, speaking, reading, and writing, and engage in a variety of simple communicative activities. They learn vocabulary and grammar essential to communicating on a basic to intermediate level, and also develop a basic understanding of the history and contemporary culture of the Spanish-speaking world. This course provides a solid foundation for the second-year course.

Lang: Spanish II

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Spanish I
Homework: Moderate

Description

This course is taught primarily in Spanish as students improve their understanding of the past, present, and future tenses. Students will also continue to learn new vocabulary that will enable them to compare and contrast cultures in the Spanish speaking world. In the latter part of the course, students will begin to develop their formal writing skills by summarizing a class, reading and writing letters. This course challenges students to improve their communication skills in the classroom through consistent auto-evaluation and oral assessments.

Lang: Spanish III

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Spanish II
Homework: Moderate

Description

Students build on the foundations of Spanish II as they expand their knowledge of grammar and their communicative skills. Students read short stories, write research papers, and give oral presentations. Vocabulary enrichment is stressed through dialogues, readings, and supplemental lists. This course is taught entirely in Spanish.

Lang: Honors Spanish III

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Spanish II and Permission of the Department
Homework: Moderate

Description

This course is offered to highly motivated students seeking a more challenging academic program that will ask them to work on Pre-AP Spanish skills and activities including reading, writing, and speaking. Communication among students will be an integral part of each lesson. Students will continue to develop their understanding of Spanish speaking cultures by integrating information on literature, art, history, music, and current events into the curriculum. Grammar and vocabulary will be covered in more depth, and the material is presented in a cultural context, enabling students to understand differences and similarities among societies.

Lang: Spanish IV

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Spanish III or Honors Spanish III
Homework: Moderate

Description

An advanced course that builds on the material covered in the previous three levels as students learn how to communicate in an increasingly sophisticated way. Spanish is the only language used by both teacher and students. The course will focus on three important times in the history of Spain: the Islamic al-Andalus, the Spanish empire (focused on the influence of pre-Columbian civilizations) and the Spanish Civil War. Readings, movies, and multimedia sources about the major civilizations that shaped the language and culture of Spain and Latin America form the basis of much of the class discussion, and students will write analytical essays. Students are strongly encouraged to explore the diversity of other peoples and cultures in more detail, thus preparing them for their role as global citizens. By the end of the course, students will have had extensive practice speaking, writing, and reading Spanish at an advanced level.

Lang: Honors Spanish IV

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Spanish III, Honors Spanish III, or Spanish IV and Permission of the Department
Homework: Moderate

Description

Sophomores and Juniors wishing to take the AP Spanish Language course in their junior or senior year may take this course. Students must end Spanish III or Honors Spanish III in the A range in order to enroll in this class.

The course will introduce the topics that are covered in the AP class. Grammar and vocabulary will be integrated into these topics. Spanish will be the only language spoken by the teacher and the students. Through an introduction to the types of questions on the AP test, students will develop the speaking, listening, writing, and reading skills necessary to be successful in the AP course. The text for this course includes magazine articles, movies, stories, and current events that students will find interesting and relevant to their daily lives. The vocabulary and grammar for this course will be intensive and students will be expected to write many essays and give presentations often in order to prepare them for the following year.

Lang: Spanish V

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Spanish IV or Honors Spanish IV and Permission of the Department.
Homework: Minimal

Description

Knowing how to speak Spanish (truly) expands one's personal universe. It completely transforms any travel experience. It can also be seen as a vehicle: to learn about other cultures, to try new disciplines, or simply to help others. This course focuses on improving oral and written skills through film and literature. As a starting point, we will look at the historical contexts of each story and make comparisons with current events. Each day, students will strengthen their Spanish skills by discussing films and texts, preparing for orals, and responding to writing prompts. At the end of each unit, students will write a reflection and explain how they can apply the central themes to their own lives. Additionally, we will cook, take dance lessons, and hear from guest speakers in order to expand our cultural understanding of the material. This is an ideal course for students who want to improve their language skills and investigate cultural topics in a "hands-on" setting.

Lang: AP Spanish Language & Culture

Credits: 3.0
Grades: 11, 12, PG
Prerequisite: Honors Spanish III, Spanish IV, or Honors Spanish IV, and Permission of the Department
Notes: Students taking this course are required to sit for the AP Spanish Language and Culture exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Moderate

Description

This course is designed to prepare students to excel in the AP Spanish course as well as the AP examination. The course follows the guidelines of the College Board AP Spanish Language course and is considered the equivalent of a third-year college course. Students focus on communicative skills, grammar, composition, vocabulary, and work with AP exercises. Themes covered are the family and communities, contemporary life, beauty and aesthetics, public and personal identities, world challenges, and science and technology.

MATH

Math: Algebra I

Credits: 3.0
Grades: 9
Homework: Moderate

Description

Algebra is a way of thinking about and representing many situations. This course introduces students to these new ideas and new ways of learning. It is important that students view algebra as a tool for problem solving, reasoning, communication and making connections. The main topics of Algebra I include symbolic algebra (e.g., equation solving, exponents, factoring), functions, data analysis, matrices, and mathematical modeling. These topics are embedded in contextual settings that provide students with an opportunity to make connections between algebra and other disciplines. Technology enables students to solve problems and to make mathematical conjectures in a variety of ways.

Math: Problem Solving: Algebra & Geometry

Credits: 3.0
Grades: 9, 10
Prerequisite: A full course in Algebra I
Homework: Moderate

Description

This course accomplishes two essential goals necessary for success in later mathematics. First, it develops a robust and confident knowledge of the fundamentals of algebra and geometry, material that is at the core of all later study. Second, and just as important, it cultivates the essential skills and habits required to make use of mathematics, including the ability to approach unfamiliar problems with creativity, to communicate mathematical ideas clearly, to be persistent and resilient in the face of complexity and ready to apply suitable tools and techniques to the problem at hand. The mathematical content of the course includes more advanced applications of material from Algebra I, as well as material drawn from the traditional content of Geometry and Algebra II. Topics are woven throughout the course to build a deeper and more confident knowledge.

Math: Problem Solving: Advanced Algebra & Geometry

Credits: 3.0
Grades: 9, 10
Prerequisite: A full course in Algebra I, and Permission of the Department

Homework: Moderate

Description

This course is a more demanding version of the Problem Solving: Algebra & Geometry course described above.

Math: Problem Solving: Algebra 2 & Geometry

Credits: 3.0

Grades: 10, 11

Prerequisite: Problem Solving: Algebra & Geometry or equivalent

Homework: Moderate

Description

This course follows the Problem Solving: Algebra & Geometry course and takes a similar approach, but includes more advanced topics in geometry and algebra. First, like Problem Solving: Algebra & Geometry, it develops a robust and confident knowledge of the fundamentals of algebra and geometry, material that is at the core of all later study. Second, and just as important, it cultivates the essential skills and habits required to make use of mathematics, including the ability to approach unfamiliar problems with creativity, to communicate mathematical ideas clearly, to be persistent and resilient in the face of complexity and ready to apply suitable tools and techniques to the problem at hand. The mathematical content of the course provides the basis for study in the Pre-Calculus or Statistics course in the following year. Topics are woven throughout the course to build a deeper and more confident knowledge.

Math: Problem Solving: Advanced Algebra 2 & Geometry

Credits: 3.0

Grades: 9, 10, 11

Prerequisite: Problem Solving: Algebra & Geometry or equivalent and Permission of the Department

Homework: Moderate

Description

This course is a more demanding version of the Problem Solving: Algebra 2 & Geometry course. The mathematical content of the course provides the basis for study in the Advanced Pre-Calculus course the following year.

Math: Problem Solving: Honors Algebra 2 & Geometry

Credits: 3.0

Grades: 9, 10

Prerequisite: Problem Solving: Algebra & Geometry or equivalent and Permission of the Department

Homework: Significant

Description

This course is a fast-paced and deep course that is a much more demanding version of the Problem Solving: Algebra 2 & Geometry courses. It is typically the most difficult mathematics course appropriate for freshmen and is usually appropriate even for students who have studied “Honors Geometry” and/or “Honors Algebra 2” at other schools. The mathematical content of the course provides the basis for study in the Honors Pre-Calculus course the following year. The course is highly

selective. In contrast to the Regular and Advanced levels of the course, some significant Geometry background is assumed and is not a focus of the course. Instead, Geometry is integrated into a mathematical whole, as the course explores progressively more advanced algebra and trigonometry topics, in addition to combinatorics and probability. Emphasis is placed on problem solving, critical thinking, and collaboration, as well as communication skills.

Math: Pre-Calculus

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Problem Solving: Algebra 2 & Geometry or equivalent and Permission of the Department
Homework: Moderate

Description

Pre-Calculus covers the material necessary for subsequent enrollment in a calculus course, though at a pace and level less demanding than that required to prepare for an AP Calculus or full college-level Calculus course. Topics include linear, quadratic, rational, polynomial, absolute value, trigonometric and logarithmic functions, sequences and series, and an introduction to concepts that are fundamental to the study of Calculus.

Math: Advanced Pre-Calculus

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Problem Solving: Algebra 2 & Geometry I or equivalent (and a strong mathematical background) and Permission of the Department
Homework: Moderate

Description

Designed to prepare the student for the AP Calculus AB course, this course provides a comprehensive study of trigonometry, and a revisit of polynomial, rational, exponential, and logarithmic functions with an emphasis on rate of change analysis and applications. Students are exposed to polar and parametric functions as well as basic combinatorics and probability and the study of sequences and series. Students enrolling in Advanced Pre-Calculus must have solid algebra skills, a working knowledge of linear, quadratic, and polynomial functions, and a commitment to their work.

Math: Honors Pre-Calculus

Credits: 3.0
Grades: 9, 10, 11
Prerequisite: Problem Solving: Honors Algebra 2 & Geometry OR in-depth background in fundamental functions (including trigonometric, exponential, and logarithmic) and Permission of the Department. Note that typically most Honors Algebra 2 courses from other schools DO NOT cover sufficient background to replace Peddie's Problem Solving: Honors Algebra 2 & Geometry course. (MPS2 Honors). Readiness for Honors Pre-Calculus at Peddie, especially for freshmen, will therefore highly depend on placement test results and individual conversations with the Math Department Chair.
Homework: Significant

Description

Honors Pre-Calculus is a rigorous course involving a thorough investigation of numerous and varied mathematical concepts to fully prepare students for the study of calculus. Beginning with a review of functions (linear, quadratic, polynomial, rational, logarithmic, exponential, inverse, trigonometric), and their applications (vectors, polar coordinates, parametric equations, de Moivre's theorem, etc.), the course includes treatments of sequences and series, probability, and combinatorics, with an emphasis on proof and mathematical rigor. In the spring term, the course follows the beginning of the Calculus BC syllabus with a focus on differential calculus and its applications. Students completing this course with distinction are eligible to enroll in the AP Calculus BC course in the following year.

Math: College Prep Mathematics

Credits: 3.0

Grades: 11, 12, PG

Prerequisite: Problem Solving: Algebra 2 & Geometry or equivalent

Homework: Moderate

Description

College Prep Mathematics covers topics and skills that are prerequisites for college mathematics courses required for different areas of study including the liberal arts. The course is context driven, emphasizing the development of a variety of mathematical models, as well as modeling techniques to explore applications of mathematics grounded in the real world. Whether independently or in a small group setting, students will be expected to engage in the exploration of different problems with the goal of developing their ability to think creatively, and critically, while at the same time providing the opportunity to collaborate with peers and become more confident in their ability to communicate their mathematical thinking.

The intent of the course is to provide students who have found mathematics particularly challenging in the past with the opportunity to develop a strong conceptual understanding of topics encountered in Geometry, Algebra II, Pre-Calculus, and Statistics. Complementing the problem-solving emphasis, students will be provided with supplementary skill work to address the corresponding procedural aspects needed to develop those tools necessary to solve a given problem. In addition to traditional analytical methods, these tools will include the use of both handheld graphing calculator technology as well as a variety of software tools designed to enhance the exploration of mathematical ideas. Though not an emphasis of the course, students will have the opportunity for further practice with both routine and non-routine questions such as those on standardized tests (ACT/SAT).

Math: Calculus

Credits: 3.0

Grades: 10, 11, 12, PG

Prerequisite: Pre-Calculus, Advanced Pre-Calculus, or Honors Pre-Calculus

Homework: Moderate

Description

The course covers elementary differential and integral calculus with an emphasis on applications. Students work collaboratively to develop calculus concepts and to form connections to their previous mathematics study. The course is designed for the student who wishes to gain an understanding and appreciation of the important theorems of the calculus. While all key concepts of calculus are included in

the course, it is not rigorous enough to prepare the student for the AP Calculus exam and does not take the place of a college-level Calculus course.

Math: AP Calculus AB

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Advanced Pre-Calculus or Calculus, and Permission of the Department
Notes: Students taking this course are required to sit for the AP Calculus AB exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

AP Calculus AB is designed to follow the Calculus AB curriculum established by the College Board. The Calculus AB course is equivalent to one semester of college calculus (three to five credit hours). AB Calculus examines both differential and integral calculus and their applications, focusing on a wide variety of functions, and explores concepts such as limits and continuity thoroughly. Students in this course are expected to possess the determination and the initiative to take on a college-level course as well as the corresponding workload. This course requires significant time and dedication to homework.

Math: AP Calculus BC

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: Honors Pre-Calculus or AP Calculus AB, and Permission of the Department
Notes: Students taking this course are required to sit for the AP Calculus BC exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

AP Calculus BC is designed to follow the AP Calculus BC curriculum established by the College Board. The Calculus BC course is equivalent to two semesters of college calculus. A working knowledge of differential calculus is required for entry into this course. One of the objectives of Calculus BC is to continue with a rigorous treatment of calculus by expanding upon the understanding and application of derivatives. The course extends into integral calculus and sequences and series with considerable attention paid to the theories underlying calculus.

Math: Linear Algebra

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: AP Calculus BC (may be taken concurrently) and Permission of the Department
Note: Linear Algebra is now a three-term course

Description

Linear Algebra is a branch of mathematics that studies vector spaces and the linear mappings between these spaces. Topics include linear transformations, matrices and their factorizations, systems of linear equations, vector spaces, bases, projections, rotations, determinants, eigenvalues and eigenvectors, and inner products. Throughout the course, students will be introduced to modern Data Science applications

by experimenting with topics such as machine learning, cryptography, natural language processing, and computer vision. Some programming will be included but no prior coding experience is expected. This course covers the content of a one-semester college course, but does not typically allow the student to bypass a university requirement in Linear Algebra.

Math: Multivariable Calculus

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisite: BC Calculus and Permission of the Department
Note: Multivariable Calculus is, once again, a three-term course
Homework: Significant

Description

This course is the continuation of the traditional sequence in the study of Calculus, often labeled “Calculus III” in a university setting. After a thorough treatment of vectors, it extends the tools and techniques of single variable calculus to functions of several variables and applications in three-dimensional space and beyond. Multivariable calculus finds application in economics, engineering, physics, business, and any field of study where problems involve more than one input variable. The syllabus and text used are similar to those of a one-semester university course, but with a focus on mastering core ideas rather than striving to be comprehensive. Note that the course does not typically allow the student to bypass a university requirement; students most often retake Calculus III in college. The absence of a prescribed AP curriculum allows the course to take time out to dig deeper into some topics, follow tangents that touch on important mathematics, and explore a wide range of mathematics outside the narrow Calculus curriculum.

Math: Microeconomics

Credits: 1.0
Grades: 11, 12, PG
Prerequisite: Problem Solving: Algebra 2 & Geometry or equivalent
Homework: Moderate

Description

This course is designed to introduce students to the economic way of thinking and the analytical tools used by economists. Students will apply microeconomic theory to analyze the decisions that individuals and firms make in today’s world. Students will be exposed to a variety of microeconomic concepts including the Laws of Supply and Demand, elasticity, market structures and the efficient production and allocation of scarce resources.

Though this is not an AP course, it does utilize the AP curriculum as a rough outline, and it will give students good insight into the nature of an introductory university level Microeconomics course.

Math: Statistics

Credits: 3.0
Grades: 11, 12, PG
Prerequisite: Problem Solving: Algebra 2 & Geometry or equivalent
Homework: Moderate

Description

This course teaches students how to use four steps of the statistical process: ask questions, collect data, analyze data, and make conclusions. Each chapter will begin with a statistical question, and then students will learn how to collect appropriate data, how to analyze the data, and how to make reasonable conclusions. The primary focus of the class will be to teach students the basic principles of statistical reasoning. Major statistical topics include: analyzing distributions of univariate and bivariate data, both categorical and numerical, using graphs and summary statistics; correlation and least squares regression; using simulations to estimate probability distributions; theoretical probability distributions, including the binomial and normal distributions; rules of probability, including conditional probability and expected value; the logic of hypothesis testing, including stating hypotheses, calculating and interpreting p-values, drawing conclusions, and Type I and Type II errors; using confidence intervals to estimate parameters; and proper methods of data collection, including sampling and experimentation. Use of technology, including online applets and the graphing calculator will be prominent in the course. Throughout the course, students will complete investigations that require students to complete the four-step statistical process.

Math: AP Statistics

Credits: 3.0

Grades: 11, 12, PG

Prerequisite: Pre-Calculus OR Advanced or Problem Solving: Honors Algebra 2 & Geometry and Permission of the Department

Notes: Students taking this course are required to sit for the AP Statistics exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Significant

Description

The AP Statistics course includes the study of all the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to several broad conceptual themes of statistics including exploring data, planning a study, modeling, and anticipating patterns, and statistical inference. The course follows the AP Statistics curriculum established by the College Board and includes material that will guide students in conducting and communicating their own statistical analysis. Students will learn standard statistical terms and techniques through presentation of real-world cases. All candidates are expected to possess the determination and initiative to take on a college-level course, including the corresponding workload.

Math: Introduction to Computer Science

Credits: 1.0

Grades: 9, 10, 11, 12, PG

Homework: Minimal

Description

Wondering whether you might be interested in making things with code? This is a fun, modern introduction to computer science using Python notebooks. It prepares students to continue either in data science or in a more traditional computer science sequence. Core computer science concepts include variables, conditionals, iteration (loops), strings, objects, and basic Python data types. The approach is often visual and creative: drawing with Turtles in Python notebooks, manipulating images, and creating data visualizations. Students finish with a short project. Beginners welcome!

Honors Computer Science

Credits: 3.0
Grades: 9, 10, 11, 12, PG
Prerequisite: Introduction to Computer Science or permission of the Mathematics Department
Homework: Moderate

Notes:

- Some prior exposure to coding is expected before taking this course.
- To be eligible to apply for the Programming subteam on the Peddie Robotics (FRC 5895) team as 10th graders, students must either complete this class as 9th graders or be concurrently enrolled in it as 10th graders.
- Students taking this course are able to sit for the AP Computer Science A exam. If a student sits for the exam, parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Honors Computer Science is a fast-paced course that introduces students to the fundamentals of programming through the Java language. Through hands-on projects, students learn to design, implement, test, and debug programs that creatively address real-world problems—from building games to simulating scientific models and developing interactive art. The course emphasizes logical thinking, algorithm development, and structured problem solving while covering core programming concepts such as data types, conditionals, loops, objects, classes, arrays, ArrayLists, 2D arrays, inheritance, and recursion. By the end of the year, students will have developed the skills to write clean, efficient, and well-documented code, preparing them for further study in computer science and a variety of applications of STEM to different career fields. The course culminates in the AP Computer Science A exam.

Math: Algorithms & Data Structures I

Credits: 2.0
Grades: 10, 11, 12, PG
Prerequisite: Programming II, Computer Science Advanced, or Permission of the Department
Homework: Moderate

Description

Students explore more sophisticated programming techniques, including: sets, maps, stacks, queues, linked lists, hash tables, trees, heaps, graphs, interfaces and abstract classes. Working collaboratively, students will implement the software design cycle as they design algorithms, code, document, and present their creative projects. The course is structured so students will complete both teacher-designed and student-designed projects. During the winter term, students will complete a more comprehensive project individually or as part of a programming team.

Math: Research in Computer Science I

Credits: 2.0
Grades: 12, PG
Prerequisite: Algorithms & Data Structures II or Permission of the Department
Homework: Moderate

Description

Students select a topic in computer science to research, and then work individually or as part of a programming team to design and implement a creative project. In addition to programming, emphasis is on code design and structure, and a more abstract approach to the study of computer science. Students keep a technical journal and present their research and projects to their peers.

Math: Seminar in Computer Science I

Credits: 2.0

Grades: 11, 12, PG

Prerequisite: Algorithms & Data Structures II or Permission of the Department

Homework: Moderate

Description

Students will study advanced data structures (lists, trees, etc.), algorithms and their analysis. In addition to programming, emphasis is on code design and structure, and a more abstract approach to the study of computer science. Students pick an area of interest for their collaborative or individual project for in-depth research, keep a technical journal, and present their research and projects.

Math: Computer Science SIG I

Credits: 3.0

Grades: 11

Prerequisite: Permission of the Department

Homework: Minimal

Description

Computer Science Signature Experience (CS EXP) is a year-long honors-level course designed for highly motivated students who are passionate about computer science and interested in exploring research or industry careers in the field. This program provides students the opportunity to move beyond the classroom and engage in authentic research, laboratory, or business experiences. During junior year, students meet regularly to explore advanced computer science topics, write research-based resumes, and apply for summer placements at universities or businesses. Throughout the winter and spring, students continue coursework in algorithms and data structures while developing individualized learning plans, reading technical literature, and preparing for their summer projects.

In the summer, students commit to a six-to-eight-week research or internship experience, during which they maintain a detailed journal and report weekly to the program director. In senior fall, students return to campus to enroll in the CS Seminar, where they synthesize their work into a formal paper, poster, and oral presentation. These projects are showcased at the EXP Science Night and may be shared with the broader school community. Students also mentor incoming EXP participants. Admission to CS EXP is selective and based on academic performance in advanced computer science and math courses (including a score of 4 or 5 on the AP Computer Science A exam), faculty recommendations, and demonstrated independence and work ethic.

SCIENCE

Sci: Biology

Credits: 3.0
Grades: 10, 11, 12
Homework: Moderate

Description

This introductory Biology course emphasizes relationships between living organisms. Topics include cell structure and function, the utilization of energy sources, genetics and evolution, fundamental life processes, anatomy, physiology, and ecology.

Sci: Honors Biology

Credits: 3.0
Grades: 10, 11, 12
Prerequisite: One year of science with an A- average and an A- average in Humanities/English.
Homework: Moderate

Description

Students enrolled in this challenging course will utilize critical thinking and problem-solving skills to design their own experiments, develop hypotheses, analyze data, make connections, and draw conclusions. Major themes in Biology will be investigated in detail and students will learn about a variety of topics, including evolution, biochemistry, cell structure and function, cellular processes, genetics, biotechnology, physiology, and ecology.

Sci: AP Biology

Credits: 3.0
Grades: 11, 12, PG
Prerequisites: Permission of the Department
Notes: Students taking this course are required to sit for the AP Biology exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

This course, which prepares for the Advanced Placement Examination, focuses on three main areas of contemporary biology: molecules and cells, heredity and evolution, and organisms and populations. While it entails mastery of a great deal of detail, at the same time it concentrates on major themes applicable throughout the curriculum: energy transfer; continuity and change; regulation; interdependence; relationship of structure to function; evolution; science as a process; science, technology, and society. Throughout the course, emphasis is placed on the important point that, despite their many differences and ways of life, organisms must be adapted to carry out similar functions and that there is unity within the great diversity of life.

Sci: Chemistry

Credits: 3.0
Grades: 10, 11
Homework: Moderate

Description

This course is an introduction to chemistry with an emphasis on reaction chemistry and the development of problem-solving skills. Lab inquiry is an important part of the course to both develop lab skills and enhance students' understanding of the material studied. Topics include matter and its changes, atomic structure and bonding, the mole, stoichiometry, reactions in aqueous solutions, acids and bases, and environmental chemistry.

Sci: Honors Chemistry

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisites: Permission of the Department
Homework: Significant

Description

This rigorous and fast-paced introduction to chemistry is intended for highly-motivated students who possess strong mathematical abilities. This course investigates the fundamentals of inorganic and physical chemistry and lays a foundation in atomic structure and bonding, stoichiometry, and chemical reactions. While the topics examined in this course are similar to those studied in Peddie's other introductory chemistry courses, the material is covered in greater depth and with more mathematical rigor. Students' problem-solving and lab skills are developed with extensive investigation into qualitative and quantitative analysis experiments.

Sci: AP Chemistry

Credits: 3.0
Grades: 10, 11, 12, PG
Prerequisites: Permission of the Department
Notes: Students taking this course are required to sit for the AP Chemistry exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

This rigorous, fast-paced course is designed to prepare students for the AP Chemistry Exam. Following the outline of the College Board, this second-year chemistry course investigates the fundamentals of inorganic and physical chemistry. Topics include qualitative and quantitative aspects of chemical reactivity, gases, kinetics, equilibrium, thermodynamics, electrochemistry, nuclear chemistry, and an introduction to organic chemistry. This course is recommended for motivated students who intend to pursue chemistry, engineering, or life-science (including pre-medical) study in college.

Sci: Topics in College Chemistry

Credits: 3.0

Grades: 11, 12, PG

Notes: Students who took a previous Chemistry course can take this course.

Homework: Moderate

Description

Topics in College Chemistry provides a more comprehensive overview of Chemistry that investigates topics not typical for our introductory chemistry course. This course is designed for a student who is not able to take AP Chemistry but plans to take science courses in college. After a brief review of introductory chemistry, students will cover new topics such as gas laws, thermochemistry, colligative properties, and equilibrium through inquiry-based learning. The format of the course revolves around hands-on applications of experimental chemistry.

Sci: AP Environmental Science

Credits: 3.0

Grades: 11, 12, PG

Prerequisites: Permission of the Department

Notes: Students taking this course are required to sit for the AP Environmental Science exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Significant

Description

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. However, there are several major unifying themes which cut across the many topics included in the study of environmental science. The structure of AP Environmental Science is based on a number of these themes, including: energy conversions underlie all ecological processes, the Earth is an interconnected system, humans alter natural systems, environmental problems have a cultural and social context, and human survival depends on developing practices that will achieve sustainable systems. Specific topics to be investigated include earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution, and global change. A strong laboratory and field component will be essential to the class, enabling students to learn about the environment through firsthand observation.

Sci: Human Anatomy & Physiology

Credits: 3.0

Grades: 11, 12, PG

Prerequisite: Minimum B average in a year-long science course

Homework: Moderate

Description

Human Anatomy and Physiology is a year-long course that builds upon content from previous science courses. It is designed for students interested in learning more about how the human body works. Students will explore various body systems, looking at how structure relates to function, and learning how homeostasis is maintained through coordinating important physiological functions. It is a course where students will have the opportunity to engage in a variety of learning activities that incorporate laboratory skills, communication skills, creativity of expression, and anatomical modeling.

You have your body your whole life, so it is a good idea to learn more about it!

Sci: Honors Human Anatomy & Physiology

Credits: 3.0
Grades: 11, 12, PG
Prerequisite: One year of science with an A average (B+ for Honors, B for AP).
Notes: May be taken concurrently with AP Biology, Honors Biology, or Chemistry courses.
Sophomores who wish to enroll must speak with Ms. Terhaar before final course selection.
Homework: Moderate

Description

This rigorous course is for students interested in a deeper understanding of the human body, medicine, and the complex world of disease. The Honors course focuses on cultivating critical thinking skills to appreciate the connections between structure and function within the human body. Students will explore the interactions between molecules, cells, organs, and organ systems to understand and explain the manifestations of various diseases as well as the approaches and advances in treatments that offer hope for recovery. Throughout the year, we will dedicate time to discuss how medicine can shape society considering legal, historical, ethical, and socioeconomic perspectives. By the end of the course, you will have gained a deeper understanding and appreciation for all that your body does for you every day!

Sci: Physics

Credits: 3.0
Grades: 9
Homework: Moderate

Description

With an emphasis on inquiry, this laboratory-oriented course explores the physical laws of nature and the techniques of science. This course provides foundational science skills needed for further courses of study, including laboratory measurements/procedures and developing mathematical and scientific models. This is an introductory mechanics class that will investigate the physics concepts surrounding kinematics, dynamics, energy, momentum, and rotation. The inquiry-based techniques of instruction encourage students to think through problems, develop analytical skills, and apply their knowledge to familiar and unfamiliar phenomena. Specific skills practiced in this course include detailed observation, hypothesis development, experimental design, organized data collection, data analysis, graphing, and troubleshooting when problems are encountered.

Sci: College Topics in Physics

Credits: 3.0
Grades: 11, 12, PG
Prerequisite: Successful completion of Problem-Solving: Algebra 2 & Geometry
Note: Students who took Physics in their freshman year should not enroll in this course.
Homework: Moderate

Description

A laboratory-based course surveying the main ideas of “classical” physics: motion, force, and energy; waves and sound and light and optics. Extensive use is made of personal computers, both in the lab as data collection and analysis tools and in class for model-building, simulations, and tutorials. Problem-solving is emphasized throughout the course, and students who enroll in it should be comfortable with mathematical manipulations. College Topics in Physics is designed for students interested in pursuing engineering, life science, or premedical curriculum in college.

Sci: Honors Physics

Credits: 3.0
Grades: 9, 10, 11, 12
Prerequisites: Must be enrolled in MPS2H or higher, and with the Permission of the Department
Homework: Moderate

Description

In this course, students learn the fundamental concepts of physics and apply them to describe and predict natural and engineered phenomena using mathematical relationships. Honors Physics is a rigorous introductory course designed for students with strong interest and aptitude in the sciences, as well as a solid foundation in mathematics. The course surveys major topics in classical mechanics, including kinematics; Newton’s laws of motion; work, energy, and power; momentum; gravitation; oscillations; and rotational motion. The spring trimester includes selected topics such as wave optics, electrostatics, circuits, and modern physics. This course provides a strong foundation for further study in advanced physics courses at Peddie and for college-level coursework.

Sci: AP Physics C - Mechanics and Electricity & Magnetism

Credits: 3.0
Grades: 11, 12, PG
Prerequisite: Completion of a full-year physics course
Must be concurrently enrolled in AP Calculus AB or higher, and with the Permission of the Department
Notes: Students taking this course are required to sit for the AP Physics C: Electricity & Magnetism and AP Physics C: Mechanics exams. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.
Homework: Significant

Description

The AP Physics C: Combined course is a rigorous second year offering for Peddie’s most able and motivated physics students. It is equivalent to two semesters of college-level, calculus-based physics and

prepares students for the AP Physics C: Mechanics and AP Physics C: Electricity and Magnetism exams. The course proceeds at a fast pace, requires sustained independent learning, and demands strong fluency in calculus-based problem solving. The curriculum is divided into two parts: Mechanics (kinematics; forces and translational dynamics; work, energy, and power; linear momentum; torque and rotational dynamics; energy and momentum of rotating systems; and oscillations) and Electricity and Magnetism (electric charge, electric fields, and Gauss's law; electric potential; conductors and capacitors; electric circuits; magnetic fields and electromagnetism; and electromagnetic induction). Mechanics topics from a previous physics course are reviewed and extended using differential and integral calculus. Electricity and Magnetism topics are introduced using differential and integral calculus.

Sci: AP Physics C: Mechanics

Credits: 3.0

Grades: 11, 12, PG

Prerequisite: Must be concurrently enrolled in AP Calculus AB or higher, and with the Permission of the Department

Notes: Students taking this course are required to sit for the AP Physics C: Mechanics exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Significant

Description

The AP Physics C: Mechanics course is a rigorous second-year offering for Peddie's most able and motivated physics students. It is equivalent to one semester of college-level, calculus-based physics and prepares students for the AP Physics C: Mechanics exam. The course covers kinematics, forces and translational dynamics; work, energy, and power; linear momentum; torque and rotational dynamics; energy and momentum of rotating systems; and oscillations. Topics from a previous physics course are reviewed and extended using differential and integral calculus.

Sci: Psychology

Credits: 3.0

Grades: 11, 12, PG

Notes: This course is not a prerequisite for AP Psychology and is not recommended for those who plan on taking AP Psychology before they graduate.

Homework: Moderate

Description

This year-long class will cover some of the most pertinent and current topics of Psychological Science and is open to juniors and seniors. Topics will include social psychology, the brain, clinical psychology, learning, emotions, motivation, and other psychological principles that will help each student be better at managing their lives now and moving forward. This is a project-based class that will allow each student to explore ideas that are important and interesting.

Sci: AP Psychology

Credits: 3.0

Grades: 11, 12, PG

Prerequisite: Minimum B+ average in year-long history course

Notes: Students taking this course are required to sit for the AP Psychology exam. Parents are responsible for all exam fees and will be billed by Peddie during the spring term.

Homework: Significant

Description

AP Psychology is a three-term course designed to introduce students to the basic principles of human behavior and thought. It is also designed to investigate the mental processes involved with human interaction with the world. It is the equivalent of a college introductory psychology course. Among the subfields studied are research methods and design, biopsychology, sensation and perception, learning, motivation, development, social psychology, and clinical psychology. Any student interested in studying science in college should not have this be their only science course in their senior year.

Sci: Digital Design and Fabrication I

Credits: 2.0

Grades: 9, 10, 11, 12, PG

This course provides students with an opportunity to design and fabricate their own products using a variety of design software, manufacturing, and finishing techniques. Students will learn to use several machines in the Izzo Design Lab to manufacture their products, including Peddie's 3D Printers, CNC Laser, CNC Water Jet, CNC Press Brake, 6-needle Embroidery Machine, and more. Finishing techniques will be developed that include the use of paints and other coating materials that serve to both decorate and protect the work students create. Emphasis will be placed on the creative design process and student choice as they practice using the techniques they learn to complete projects personal to each student. Sample projects may include toys, mechanical devices, furniture, musical instruments, and architectural models, just to name a few.

Sci: Engineering Design I

Credits: 3.0

Grades: 9, 10, 11, 12, PG

Notes: To be eligible to apply for the Engineering Subteam on the Peddie Robotics (FRC 5895) team as 10th graders, students must either complete this class in 9th grade or be concurrently enrolled in it in 10th grade.

Description

In this course, students will develop skills using the Engineering Design Process to design and build a competitive FIRST Robotics Competition (FRC) style robot. Skills that will be developed throughout the course include: 3D modeling using Onshape software, prototyping, data collection and analysis, material selection and processing, mechanical system design, and a variety of manufacturing techniques. Students will learn to operate a 3D printer, laser cutter, CNC water jet, CNC press brake, band saw, drill press, and more. One goal of this course is to prepare students to participate and compete in two events within the FIRST Mid-Atlantic Robotics District. All of the work on the robot will take place in class. There will be no after school component to this course, other than the two optional competitions in March that take place on Friday evening, and all day Saturday and Sunday. Students will be encouraged to attend these competitions, but are not required to do so.

Sci: Engineering Design II

Credits: 3.0

Grades: 10, 11, 12, PG

Notes: Students taking this class are NOT required to participate in the Peddie FIRST Robotics team as their winter and spring after school activity.

Description

This course serves as a follow-up to Engineering Design I, and builds upon the concepts and skills learned in that course. ED2 will cover a range of topics including: advanced computer aided design (CAD), mechanical power transmission, sensors, control systems, and structural analysis. Students will learn to fabricate parts using Peddie's computer numeric control (CNC) machines. During the winter term, members of the Peddie Robotics team will focus on building a large-scale robot to compete in the FIRST Robotics Competition. Students who are not members of the Peddie Robotics team (FRC 5895) will engage in alternative engineering design projects.

ROBOTICS REQUIREMENTS

The FRC 5895 Peddie Robotics team has two subteams: **Engineering** and **Programming**.

If you would like to be on the FRC 5895 **Engineering Subteam**, you should:

- Take Engineering Design 1 as a 9th grader, then apply to the team in May of your 9th grade year.

OR

- Take Engineering Design 1 as a 10th grader, and apply to the team in November, while concurrently taking the course.

The Engineering Design 1 course will focus on building a FIRST Robotics Competition (FRC) style robot.

If you would like to be on the FRC 5895 **Programming Subteam**, you should:

- Take Honors Computer Science as a 9th grader, then apply to the FRC 5895 team in May of your 9th grade year.

OR

- Take Honors Computer Science as a 10th grader, then apply to the FRC 5895 team in November, while concurrently taking the course.
- All students in the FRC 5895 Programming Subteam should also take Algorithms and Data Structures in either 10th grade or 11th grade.

The Honors Computer Science course will focus on skill development that will be essential for use on the FRC 5895 Programming Subteam.

ONE TERM ELECTIVES

Sci: Field Ecology

Credits: 1.0
Grades: 11, 12, PG
Homework: Minimal

Description

This course will introduce students to the organisms and ecosystems of New Jersey through hands-on and classroom-based exploration. Students will gain an appreciation for New Jersey's biodiversity and learn how to identify and classify the organisms they study, along with the habitats they inhabit. The course will also explore the ecological roles these species play in their environments, as well as their respective conservation challenges and strategies. Students will develop their skills in organism identification using field guides, apps, websites, and curated natural specimens. Through identification exercises and ecological investigations, students will deepen their understanding and appreciation of the natural world.