



Upper School  
Course of Study  
**2022-2023**



PROVIDENCE DAY  
SCHOOL

# Academic Program

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# Introduction

Since choosing courses next year and beyond constitutes the basis of a good education, students should plan each year as part of a larger course of study, remembering that long-range goals may influence or constrain choices for the next year. Breadth, depth, and rigor are important considerations, but so is balance. Students should select courses that are challenging and stimulating, yet manageable. Courses taken should also be ones that allow students to pursue areas of interest while being introduced to new areas of learning. Students will no doubt change their career goals over the years, but they will preserve their options by taking as broad a range of courses in English, History, Mathematics, Science, World Language, and electives as possible.

Students and parents should read the entire catalog carefully and recognize that the diploma requirements represent only a minimum level of expectation that Providence Day believes is necessary in a student's education. The following questions need to be considered in the planning process: Do the course selections fulfill the annual course load requirement? Will the courses selected over the high school career fulfill the graduation requirements? Are the courses selected compatible with the student's ability and interests?

The courses students choose represent only the beginning of their education. Often, there is no room to take every discipline each year or even to allow for every exciting course over the Providence Day career. Colleges will offer students the opportunity to explore a broader range of courses, provided they have prepared themselves as well as possible with a strong foundation at Providence Day School.

# Mission/Philosophy

## Mission Statement

Providence Day exists to inspire in its students a passion for learning, a commitment to personal integrity, and a sense of social responsibility.

## School Philosophy

Providence Day School centers all goals and efforts on the comprehensive development of the student. The school provides a strong preparatory education and guides growth through an appreciation for aesthetic, cultural, and moral values. The school creates an environment that encourages the importance of education and the value of approaching life with confidence and enthusiasm. Parent involvement and support of the efforts of the school are essential to each student's success. Moreover, the school relies on the larger Providence Day family, including trustees, parents, students, alumni, and friends of the school as a powerful team to achieve its goals.

Teachers at Providence Day expect students to reach their full academic potential to develop the ability to question critically, to learn openly, to listen actively, to think creatively, and to communicate effectively. Advanced and individualized instruction provides students with the knowledge and incentive to excel in a college setting as well as in their chosen careers.

Students at Providence Day recognize that they are preparing for a future of leadership and responsibility. The faculty and staff realize that, while these students require challenging, stimulating academic programs, a wide range of enrichment opportunities enables them to become responsible, sensitive, mature young adults with diverse abilities and interests. Therefore, Providence Day provides activities of a varied nature at all grade levels to aid students' appreciation of their culture, community, and world. A strong program of athletic competition also provides students at Providence Day with opportunities for rich choices in service and leadership.

Graduates of Providence Day are enriched as individuals, academically confident to face the challenges of additional educational opportunities. Lasting friendships and personal bonds with students and faculty are the result of the strong commitment shared by everyone in the school family to help students continue to achieve.

The Providence Day curriculum is strongly rooted in the liberal arts tradition. At the same time, it is open to change as departments review and revise their offerings based on the skills students will need in the twenty-first century.

Class sizes remain low to meet the needs of an able and active student body. Students spend five to six hours each day in classes and should expect to spend two and a half to four hours per day

outside of class in preparation. Effective education cannot be measured by the amount of time expended, of course, but a lasting education requires considerable effort on the part of students, and those who attend Providence Day need to have high expectations of themselves.

Normally, students at Providence Day enroll in at least five academic courses each semester while taking one or two non-academic elective courses. Some students, usually seniors, who face an unusually demanding semester, are occasionally advised to take four courses, provided at least three are Advanced Placement. The academic year at Providence Day consists of thirty-six weeks.

While Providence Day's classes begin at 8 a.m., teachers are available from 7:45 a.m. In this tradition, students may find teachers in their classrooms and office areas each day of the week should they have questions or wish to discuss an academic issue. Teachers frequently encourage and require students to attend morning, lunch, or after-school review or discussion sessions.

Each student has an Advisor; this member of the faculty has the responsibility of guiding the student in shaping a well-thought-out, long-term academic program incorporating both breadth and depth. In planning a program of studies, the student's needs and aspirations are carefully considered, in addition to the necessity of meeting all of the diploma requirements. These needs may include college and career plans, strengths and weaknesses as revealed by previous performance and aptitude tests, and character and personal development.

Advisors prepare a written selection of courses for each advisee; a copy of this selection is sent home to parents in March. Advisors welcome information and suggestions from parents concerning student course selection. In addition to the Advisor, the Upper School Head approves the student's course selection.

Students have the opportunity to select Advanced Courses that have been determined by the departments as being above average in difficulty. These courses are given extra weight (five points) when computing a student's grade point average, determining honor roll status and membership in the National Honor Society. Advanced Geometry, Advanced Algebra II/ Trigonometry, Advanced Precalculus, Advanced Analysis, Advanced Calculus, Advanced Differential Equations, and Advanced Linear Algebra, Advanced Calculus III and Calculus Topics, Advanced Data Structures in Java, Advanced Global Leadership, Advanced European Literature, Advanced Current American Literature, Honors Band, Honors Jazz Ensemble, Honors Chorus, Honors Orchestra, Level 6 of German, Levels 6 and 7 of Spanish, French, and Mandarin Chinese, and Levels 5 and 6 of Latin are considered advanced. Students making below a 70 in an advanced course do not receive any extra weighting.

Students of superior promise may prepare for the AP examinations of the College Entrance Examination Board by taking special AP courses or a suitable program of upper-level electives. AP programs are currently offered in English Literature and Composition, English Language and Composition, Calculus AB, Calculus BC, Statistics, U.S. Government and Politics, Computer Science, Environmental Science, Physics, United States History, World History, European History, Psychology, Human Geography, Microeconomics, Macroeconomics, Biology, Latin, Spanish Language, Mandarin

Chinese Language and Culture, French Language, German Language, Studio Art, Art History, Chemistry, and Music Theory. Students who take an Advanced Placement course must purchase their books and take the AP exam at the end of the year. The cost of the exam is approximately \$94. These courses are given extra weight (ten points) when computing a student's grade point average. Students making below a 70 or below in an AP or Advanced Placement course do not receive any extra weighting.

Students may also choose to delve deeper into global leadership through the Global Studies Diploma program. This second diploma explores a focused curriculum in global studies, challenges students to enrich their cultural awareness, and embark on a journey as a global citizen

Graduates, almost without exception, go on to four-year colleges, where they find themselves well prepared. In an environment where excellence is the norm, students challenge each other, and dedicated teachers listen, encourage, and inspire. Students leave Providence Day having learned to think critically and communicate effectively. Students achieve much more than test scores attractive to college admissions offices; they prepare for success in college and beyond. With the help of committed teachers, students learn to take responsibility, overcome barriers, and assume leadership.

# Promotion Requirements

Promotion in the Upper School is based on the following criteria:

## Entering Grade 10

To have sophomore standing, a student must have earned at least four units of credit, including one unit each of English and math.

## Entering Grade 11

To have junior standing, a student must have earned at least ten units of credit, including two units each of English and math, two laboratory science units, and two units of history.

## Entering Grade 12

To have senior standing, a student must have earned at least sixteen units of credit, including three units each of English and math, two laboratory science units, two units of history, one unit of World Language, and have met the computer science requirement of .5 units credit during grades 9-12.

In order to graduate, a student must earn at least twenty-two and a half units of credit with a distribution of courses outlined in the Graduation Requirements Schedule. In addition, all seniors must successfully complete a senior project.

# Graduation Requirements

Students are required to earn a total of twenty-two and one-half (22.50) units of credit during grades nine through twelve and successfully complete a senior project in order to receive a diploma. The number of required units is as follows:

Courses	Units	Comments
English	4.0	One course per semester is required. English I, English II, and either Writing Seminar or AP Language and Composition are required.
Mathematics	4.0	Algebra I, Algebra II, Geometry, and one year of math beyond Algebra II (usually Precalculus) are required.
Laboratory Science	3.0	Three years of a laboratory science class are required: Physics, Chemistry, and Biology.
History	3.0	Three years of history courses are required. Students must take Global Civics, World History or AP World History, and U.S. History or AP United States History. Students entering Providence Day after grade 9 are not required to take Global Civics.
World Language	2.0	Two years of the same language in grades 9-12 are required. It is strongly recommended that students who are proficient and interested in a language continue beyond the requirement.
P.E	2.0*	One year of physical education/health is required in grade 9. Students must also take physical education, one year or two semesters, in grades 10-12. *A student may request to be exempt from one-half (1/2) unit of physical education while in grades 9 through 12. In addition, a student must successfully complete the PDS Physical Fitness Test with 450 or more points. The exemption test must be completed by the start of the second semester senior year. Please see details regarding the <a href="#">exemption test and the scoring</a> .
Fine Arts	1.0	One unit must be earned in Fine Arts. One year or two-semester courses may be taken in Art, Band, Chorus, Orchestra, Theatre, Yearbook, Photography, or AP Art History.
Computing & Innovation	0.5	At least one-semester of a Computing & Innovation course must be taken in grades 9 - 12.
Electives	3.0	Any course taken beyond the required units listed above will be given elective credit. <a href="#">Global Online Academy</a> courses may meet this requirement. A student may count a maximum of two units in physical education and a maximum of two units in fine arts (Art, Chorus, Band, Theater, Yearbook, Orchestra, Photography) toward the 22.5 units required for graduation.

# Global Studies Diploma

## Mission Statement

Our purpose is to promote within our students an ability to appreciate and value the differences among people locally and globally and help them develop the knowledge, skills, and character dispositions to become active global citizens.

### Goals:

- Understand commonalities among all cultures.
- Appreciate new knowledge systems and ways of thinking about the world.
- Demonstrate high proficiency in a spoken world language.
- Understand and promote the value of living to sustain the planet.
- Understand the connectedness and complexity of global issues.
- Demonstrate tolerance and an active empathy towards others in the world.
- Develop a genuine concern for world problems and a commitment to finding solutions.

## PDS Global Studies Diploma

The Providence Day School Global Studies Diploma program (GSD) allows students in grades 9-12 to choose a curriculum and a set of experiences that focus on developing successful and responsible global citizens. Students who earn the GSD will have the knowledge, skills, and values to understand and act purposefully in the local-global context. The GSD is in addition to the Providence Day School Diploma.

### Joining the GSD Program:

- Students in 8th grade may sign up for the [GSD program](#) at the end of their spring semester.
- Freshmen should sign up prior to the end of the freshman year in order to facilitate schedule planning.
- Sophomores may sign up for the program provided the student's world language level is sufficient to meet the world language requirement before graduation - successful completion of Year 4.
- Students who travel abroad, host an international student, or attend global events may be able to earn global points after they join the program provided the experience occurred within the previous six months of joining.

Students must maintain a grade of B- or better in all global studies courses taken to complete the GSD. A student who receives less than a B- may be put on probationary status by the Global Education Program Office. A review by the Academic Committee will determine probation if a global studies student earns a grade of less than a B- in any global education course. If placed on probation,

a student will have the next academic semester to demonstrate academic success at a B- or higher level. At the end of that semester, the Academic Committee reviews the academic standings of the student's progress. If a student does not maintain an academic standard consistent to a B- or higher in all of the courses taken to complete the Global Studies Diploma including Global Leadership, he or she may be removed from the GSD program. In addition, a student who earns a D or below in a global studies course taken to complete the Global Studies Diploma will be dropped from the program without a probationary period.

## Curriculum Requirements

### Required Courses

Students are required to take the following courses while in grades 9-12:

- Global Civics (1 year/1 credit)
- World History (1 year/1 credit) or AP World History (1 year/1 credit)
- Comparative Government and Politics (semester/0.5 credit)
- TWO Global Studies courses from any of the following six:
  - Global Studies: Europe and the Americas (semester/0.5 credit)
  - Global Studies: Middle East and North Africa (semester/0.5 credit)
  - Global Studies: Genocide (semester/0.5 credit)
  - Global Studies: Asia (semester/Summer term 0.5 credit)
  - Global Studies: Africa (semester/Summer Term/0.5 credit)
  - Global Studies: Themes and Challenges (Summer term/0.5 credit)
- Global Leadership, Advanced (Spring semester/0.5 credit) See below for details.
- World Language: A GSD student must take ONE world language ALL four years in upper school AND satisfactorily complete at least through Year 4 of that language. The student may select Chinese, French, German, Spanish, or Latin.

Global Leadership Course (Advanced) This course develops and directs global leadership thinking, skills, and action. Components include:

- A major research and solutions essay (12+ pages) that investigates and analyzes a world or regional problem of genuine interest and develops and provides proposals for how to make it better or steps towards change.
- The study of leadership styles and their impact on group dynamics
- Group trip to investigate governmental and non-governmental offices that address global challenges
- Organization and participation in a mock convention or role-playing activity to address a global issue
- End of senior year defense of the student's research paper, reflection on the course of study, and articulation of what it means to be a global citizen after graduation before a panel of faculty and staff

In the fall of the senior year, each student will meet to define one's global issue for the Global Leadership course.

## Elective Courses

Two and one-half credits (2.5) are required from any of the following courses while in grades 9-12:

### English

- Global Literature Topics (semester/0.5 credit)
- Modern Dramatic Literature (semester/0.5 credit)
- Latino American Literature (semester/0.5 credit)
- Graphic Novels (semester/0.5 credit)
- Shakespeare (semester/0.5 credit)
- AP English Literature (1 year/0.5 credit)

### History

- Comparative Religions (semester/0.5 credit)
- Social Entrepreneurship (semester/0.5 credit)
- Economics of Development (semester/0.5 credit)
- Global History of the 1960s (semester/0.5 credit)
- Legal Issues (semester/0.5 credit)
- Crises of Nationalism: The US Civil War and the World in the 1860s (semester/0.5 credit)
- World Politics (semester/0.5 credit)
- AP European History (1 year/1 credit)
- AP Human Geography (1 year/1 credit)
- AP Macroeconomics (semester/0.5 credit)
- Global Studies course beyond the two required (see "Required Courses" above) (semester/0.5 credit)

### Science

- AP Environmental Science (1 year/1 credit) OR
- Bioethics/Biotechnology (semester/0.5 credit)
- Environmental Studies: Rethinking Sustainability in the 21st Century (semester/0.5 credit)

### Visual & Performing Arts

- AP Art History (1 year/1 credit)
- Understanding Art: A Global View (semester/0.5 credit)
- (Re)Act: Theatre and Social Change (semester/0.5 credit)
- Upper School Chorus (year/one-time 0.5 credit)

## **World Language**

- Second Modern Language (1 credit).

## **Math**

- Math for the Social Sciences (semester/0.5 credit)

## **Physical Education**

- International Games (semester/0.5 credit)

Each GSD student will create a personal website that demonstrates their development, learning, and achievements. As they log participation in co-curricular experiences, they will add reflections tied to each of the core competencies that define an effective and responsible global citizen. The details and requirements are outlined in this [GSD Portfolio document](#).

# Global Online Academy for GSD

A GSD student can register for one of these fully online courses as part of the normal registration process which will count as GSD elective credits. The student must get approval from the Upper School Head before registering. Students must submit this [GOA Course Request Form](#) to the Upper School office for enrollment.

Formal registration for online courses will begin in April for semester one and two courses. Summer GOA opportunities are discussed below and there is a fee for these classes during the summer session. To learn more, please go to:

<https://globalonlineacademy.org/what-we-do/student-program/student-courses>

\*As GOA classes change frequently, the Upper School Head may endorse other GOA classes.

## Semester 1 (Fall)

- Cyber Security
- Problem-Solving with Engineering and Des
- Bioethics
- Global Health
- Medical Problem Solving I
- Business Problem Solving
- Applying Philosophy to Global Issues
- Entrepreneurship in a Global Context
- Climate Change and Global Inequality
- Genocide & Human Rights
- International Relations
- Introduction to Investments
- Race & Society
- Introduction to Legal Thinking
- Prisons and Criminal Justice Systems

## Semester 2 (Spring)

- Arts Entrepreneurship
- iOS App Design
- Cyber Security
- Bioethics
- Medical Problem Solving I
- Medical Problem Solving II
- Business Problem Solving
- Race & Society
- Climate Change and Global Inequality
- Entrepreneurship in a Global Context
- Religion & Society
- International Relations
- Prisons and Criminal Justice Systems
- Introduction to Investments
- Introduction to Legal Thinking
- 9/11 in a Global Context
- Gender & Society

To learn more about the Global Online Academy, please go to <http://www.globalonlineacademy.org/the-go-a-experience/courses/>

## Summer GOA Classes

Summer GOA classes must be registered through the PD Academy with Summer Programs. Summer courses for Upper School graduation credit must also be approved by the US Head and you can register by clicking [here](#) prior to taking a class.

A GSD candidate course selection from the Global Online Academy must be:

- a course not offered at Providence Day School.
- a course approved as a global course defined by the Global Education Office.

The course will appear on the student's transcript and will fulfill a GSD elective and a graduation elective credit.

A minimum GPA of 2.5 is required for approval to participate in a Global Online Academy course.

The course may be inserted into the regular academic day schedule or could be an additional course to the seven courses allowed in a schedule. Students are encouraged to allocate time during the school day for this course.

Acceptance into a course is prioritized by seniors, then juniors, then sophomores, and finally freshmen.

The Upper School Office and the Global Education Office have the final approval of any student seeking to take a Global Online Academy course.

# Global Online Academy

Rising 9-12 grade students may enroll in a GOA course to meet elective credits towards graduation.

- A [Global Online Academy](#) course is an asynchronous and sometimes synchronous learning experience through an online forum. These courses are taught by Independent School teachers from around the United States and the world. The courses meet a rigor equal to a Providence Day School course with an expectation of up to one hour of work per regular school day. Students are expected to be well organized and highly motivated to work in this learning environment. Teachers of a GOA course do connect via a video conference forum and also communicate regularly. Final grades from these courses are listed on the Providence Day School transcript and average with the Providence Day School grade point average. Students may request a study hall while taking a Global Online Academy (GOA) class to give them time during the school day to dedicate towards getting the work done for this class.
- Students must submit the [GOA Course Request Form](#) to the Upper School office for enrollment.
- Certain GOA courses meet credit requirements towards the Global Studies Diploma.

Providence Day School students can register for one of these fully online courses as part of the normal registration process. The student must get the approval and signature of the Upper School Head. The application form for a GOA class may be found at [this link](#)

## Summer GOA Classes

Summer GOA classes must be registered through the PD Academy with Summer Programs. Summer courses for Upper School graduation credit must also be approved by the US Head and you can register by clicking [here](#) prior to taking a class.

A GSD candidate course selection from the Global Online Academy must be:

- a course not offered at Providence Day School.
- a course approved as a global course defined by the Global Education Office.

The course will appear on the student's transcript and will fulfill a GSD elective and a graduation elective credit.

A minimum GPA of 2.5 is required for approval to participate in a Global Online Academy course.

The course may be inserted into the regular academic day schedule or could be an additional course to the seven courses allowed in a schedule. Students are encouraged to allocate time during the school day for this course.

Acceptance into a course is prioritized by seniors, then juniors, then sophomores, and finally freshmen.

The Upper School Office and the Global Education Office have the final approval of any student seeking to take a Global Online Academy course.

# I.D.E.A.S.@PDS

Ideas@PDS is a reimagining of the Computer Science department that offers students the chance to explore and expand their passions and curiosities around innovation, design, entrepreneurship, analytics, and sustainability. This unique program invites faculty and students to work across boundaries and at the intersections of traditional disciplines and departments. The learning arising from these courses always aims at applied, collaborative problem solving. Students have the opportunity to identify challenges they care about and want to pursue calling upon skills and mindsets delineated in the [PD Passport](#). These courses fit into two interdisciplinary strands (1. Computing & Innovation and 2. Design & Entrepreneurship).

**Rising 9th grade students and students new to the Upper School will need to select from the courses listed under Computing & Innovation to meet their Computer Science graduation requirement.** Current students who are rising 10th, 11th, and 12th graders can still select any of the courses listed in Computing & Innovation or Architecture Design to meet their Computer Science graduation requirement.

## Computing & Innovation

As a part of the Ideas@PDS Program, the Computing & Innovation Department prepares students for the fast-paced, technological world they will encounter. The school's computer labs offer students the opportunity for classroom instruction in computer programming and computer applications to help students become computer literate and prepared for college.

### Computer-Aided Design with 3D Printing

This course will consist of a basic introduction to traditional mechanical drawing using a computer-aided design (CAD) software package, as well as an introduction to 3D printing. Students will learn to use these sophisticated computer programs as they construct mechanical drawings that can then be printed using a 3D printer. The course will also include an introduction to isometric drawings and full three-dimensional modeling techniques.

*Prerequisite: Geometry completed, (Preference will be given to students who have completed Art I) (Semester) Fall Term*

### Computer Programming with Python

Computers are becoming more and more pervasive in our society and are found in all parts of our lives. Learning to program a computer can be useful, fun, and help you to become a better problem solver. This course is an introduction to computer programming using the Python programming language. This course covers basic programming concepts such as variables, data types, iteration,

flow of control, input/output, functions, graphical user interfaces, and event-driven programming. The course will conclude with a 2 week-long programming project, and by the end of the course, students should be able to build a moderately-sized Python program on their own.

*No prerequisite: (Semester) Fall/SpringTerm*

## **Advanced Data Structures in Java (Advanced)**

This course is designed for students who have successfully completed APCS A and who are looking to expand their knowledge of the Java programming language. The course content is similar to what is typically covered in a second-semester college programming class and will cover concepts of data abstraction and encapsulation including stacks, queues, linked lists, binary trees, recursion, hash maps, and heaps.

*Prerequisite: APCS A (Semester) Fall Term*

## **Game Development with Unity and C#**

Game Development w/ Unity and C# is all about starting to learn using the "Create with Code" curriculum how to develop video games using the C# programming language and the Unity game engine. In this course, you will learn to Create with Code as you program your own exciting projects from scratch in C#. As you iterate with prototypes, tackle programming challenges, complete quizzes, and develop your own personal project, you will transform from an absolute beginner to a capable Unity developer.

*No prerequisite: (Semester) Fall/Spring Term*

## **iOS Programming with Swift**

This course is designed for students to explore all elements of mobile app development for iOS devices. Students will use Xcode and iOS SDK to learn the basics of the Swift programming language as well as exploring the Cocoa Touch frameworks. Online videos and tutorials will support instruction. Students will have plenty of time for programming practice on lab computers and testing their apps on their own personal mobile devices.

*No prerequisite: (Semester) Fall/Spring Term*

## **Physical Computing**

This course will introduce students to the concepts and practices of engineering interactive systems and environments using low-cost microcontrollers. They will use Arduinos and Raspberry Pis to construct prototypes using electronic components such as buttons, switches, low-cost sensors, displays, LEDs, motors, and wireless communication modules. The possibilities are limitless. After learning fundamental concepts through an introductory assignment, students will create a larger

project of their own design. This project will require a high level of critical thinking, problem-solving, and innovation.

*No prerequisite: (Semester) Spring Term*

## **Web Application Development**

As the demand continues to grow for more Cloud Computing Engineers, students will be exposed to the tools necessary to become a web application developer. Students will design and create static and responsive websites, set up and run a web server, and work with establishing user databases.

*No prerequisite: (Semester) Spring Term*

## **AP Computer Science A**

This course follows the College Board's Advanced Placement Computer Science syllabus, learning to program in the Java language, and is meant to be the equivalent of a first-semester college course in computer science. The major emphasis of the course is on Java syntax and class structure, problem-solving techniques, object-oriented solution methodologies, algorithms, and data structures. Students learn the context of these subjects through applications of computing.

*Prerequisite: Accelerated Algebra II/Advanced Geometry with a consistent B average or better in all math classes from Accelerated Algebra II/Advanced Geometry through current math course and department approval. (Year)*

## **AP Computer Science Principles**

This course engages students in the creative aspects of the computer science field. Students will develop a range of skills vital to success in subsequent college courses, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems and discussing and writing about the importance of these problems and the impacts on their community, society, and the world.

*Prerequisite: Geometry with a consistent B average or better in all math classes from Geometry through current math course and department approval. (Year)*

# Design & Entrepreneurship

As a part of the Ideas@PDS Program, the classes in the Design & Entrepreneurship offer students unique opportunities to explore their own passions and pursuits while developing and enhancing their problem solving skills.

## Architecture Design

This course focuses on the principles and concepts of architectural design, and the use of Building Information Modeling (BIM), used in the field of architecture. An emphasis is placed on the use of 3D CAD tools in the design and execution of residential floor plans, foundation plans, wall sections, and elevation drawings. An understanding of 3D CAD concepts and terms, and the use of 3D CAD software such as REVIT, are essential to this course, and the required method of producing finished drawings. English language arts, mathematics, and science are reinforced.

*No prerequisite: (Semester) Fall/Spring Term*

## Engineering Design Challenges

This project-based engineering course challenges students to apply physics and math principles to engineer solutions to problems. The projects cover multiple engineering disciplines.

**This course also will count as a Science credit.**

*Prerequisite: Physics I and Algebra I (Semester) Fall Term*

## Social Entrepreneurship

Social Entrepreneurship is an experiential learning elective course designed to guide and propel students through the knowledge and processes necessary to launch businesses that create social value. Students will learn and apply new knowledge and skills in order to collaboratively problem-solve to develop and implement creative business models that sustainably address real-world social problems. They will learn how to rapidly develop and test ideas by gathering massive amounts of customer and marketplace feedback. In addition to learning about complex social problems and applying rigorous entrepreneurial processes to address them, students will also focus on collaboration, leadership, writing, research, and presentation skills that will serve them for the rest of their lives. This course also uses just-in-time content and resource acquisition to support learning toward the creation and realization of students' capacity to positively impact the world through social entrepreneurship.

*No prerequisite (Semester) Fall Term (0.5 Global Studies credit)*

## **STEM Research and Design**

This course offers students the opportunity to pursue multidisciplinary research challenges in science, technology, engineering, and math. Students will choose their own research project, design and conduct experiments, and communicate the results by the end of the semester. Students will receive guidance not only from their instructor but other science department faculty as well.

**This course also will count as a Science credit.**

*Prerequisite: Physics I and Algebra I (Semester) Spring Term*

## **Student Centered Design Thinking**

How might we utilize the skills and practices of a design thinker to improve our lives? We will spend the semester cultivating the skills and practices of a design thinker to collaborate our way toward addressing problems impacting students. Studying the history of design and designers will enable students to imagine who and how they want to be in the world. Students in the class will come together as a studio of designers, a collective of artists, a firm of consultants, a cadre of innovators to excavate and address pressing issues and opportunities. Having formed a creative, collaborative problem solving group, the team will help one another to create personal designs that advance their life and learning goals. Additionally, the class will come together to identify a shared design opportunity that positively impacts the PDS community.

*No prerequisite: (Semester) Fall/Spring Term*

## **Sustainable Engineering**

This course will focus on how to solve complex problems found within the Sustainable Development Goals as described by the United Nations. Students enrolled in this course will work through the design process to identify a problem, research, imagine, plan, create, test, and redesign a viable solution. Students will work with community partnerships and learn to collaborate with others in an effort to produce measurable outcomes. This work will be presented at the end of the semester.

*Prerequisite: Architecture Design or CAD & 3D Printing or Physical Computing (Semester) Spring Term*

# English

The English Department is committed to teaching students to negotiate meaning, through the reading and analysis of literary art and through the writing of original prose and, occasionally, poetry. At the heart of our curriculum is linguistic analysis: when we read closely, we analyze others' language; when we write with care, we analyze our own (and our classmates'); and, whether in the midst of a discussion of literature or of the drafting of an essay, when we focus on grammar, we analyze sentences. Furthermore, a guiding assumption for every English teacher is the correlation between the quality of thought and writing. Ultimately, though, what occurs in English classes has to do with no less than understanding oneself and one's place in the world, a process that tends to swing between delight and discomfort. English is required in grades nine through twelve.

## English I

Ninth-grade students read, discuss, and write about novels, short stories, and plays—including *Macbeth* and *The House on Mango Street*—with an eye toward developing analytical skills and appreciation for literary art. Characterization and thematic development are the focal points. Writing assignments include essays, journal entries, and a research-based podcast project. Students often work in small groups to discuss writing and topics of interest from the readings. Grammar instruction and review occurs frequently.

*Required for graduation (Freshman Year)*

*No prerequisite (Year)*

## English II

Tenth-grade English provides an intensive focus on writing skills, through essays that scrutinize literature from a variety of rhetorical approaches. Great poetry and prose of American literature—including such works as *The Great Gatsby* and *Their Eyes Were Watching God*—provide the thematic and stylistic matter out of which students will develop analytical arguments (including writing from research), personal responses, and imitative narratives. Because assignments begin to require attention to varying audience expectations, English II students have more freedom with regard to paragraph and essay organization than ever before. Working often in small groups, students help each other internalize the notion of audience.

*Required for graduation (Sophomore Year)*

*No prerequisite (Year)*

## Writing Seminar

In this course for juniors, student writing constitutes the text. During the first month, frequent brief essays that draw upon students' own experiences and knowledge provide students with a body of work with which to practice revising and editing skills. Writing Seminar places more emphasis on style

and voice than in past courses, providing direct instruction in ways to organize one's prose to achieve particular rhetorical aims. Longer essays include researched arguments about the campus community and about a broader issue. Students continue to work with each other to refine their developing sense of what it means to write for an audience. Grammar review occurs throughout. Required for graduation unless AP English Language and Composition is taken during their junior year.

*(Semester) Fall or Spring of Junior Year*

## **Creative Writing**

Creative Writing students write original prose fiction and poetry in a workshop setting. The course develops creativity and communication skills as students invent characters and plots, using language that is energetic and vibrant and that achieves desired effects on readers. It instills collaborative values and deep thinking as classmates provide analytical feedback on each other's work. Writing is judged according to overall literary quality (a concept the course rigorously examines) and grammatical consistency. Particularly talented students are urged to enter national contests and to submit their work for publication.

*(Semester) Fall or Spring of Junior or Senior Year*

## **English Studies in Film: Philosophy in Film**

This course will use the medium of film to investigate how writers and directors explore life's profound questions. To form a basic foundation of knowledge on the subject, students will read excerpts from classical philosophical texts and articles from contemporary journals. They will then use this understanding as they watch, analyze, and discuss a variety of movies and television programs. Potential topics for discussion include how we define good and evil, moral and immoral behavior, as well as what constitutes the self, existence, and reality. Some of the films and programs that students might analyze include *The Matrix*, *The Truman Show*, and *Batman Begins*. Students will maintain a journal and write several short papers and one summative essay.

*(Semester) Fall or Spring of Junior or Senior Year*

## **Global Literature Topics**

In these courses, students will engage with a variety of genres including short stories, novels, non-fiction, as well as some relevant pop-culture performances. The texts will span diverse countries and cultures, from Asia to the Caribbean, from Africa to Latin America. Through class discussions and analytical writing assignments, students will be taught to think critically about texts that share a general common topic, which may vary from year to year, such as gender, magical realism, or justice. In doing so, they will sharpen their thinking and expand their awareness of humanity. They will also be asked to reflect on what global citizenship entails, including their own understanding of themselves as global citizens.

*(Semester) Fall or Spring of Junior or Senior year (0.5 Global Studies credit)*

## **Graphic Novels**

Students will scrutinize texts that combine words and images. Graphic novels--long-form comics--have gained considerable global representation and collaboration, the study of which will allow students to expand the breadth of their literary experience. These visually engaging texts will provide students the chance to read cultural histories from around the world through the sophisticated storytelling of this evolving medium. Moreover, students will design a multimedia work of literary analysis, leading students toward the collaborative creation of their own mini-comics. We will work through two graphic novels collectively before students begin to select works they will read, write about, and think through individually and in small groups. The course will culminate in students sharing their work and learning through a student-organized in-school convention that will mimic elements of an actual comic-con.

*(Semester) Fall or Spring of Junior or Senior Year (0.5 Global Studies credit)*

## **Modern Dramatic Literature**

This course surveys classics in modern drama, highlighting the evolution of the period. The aim of the course is to introduce students to plays that may initially confound and amuse but that ultimately deepen our understanding of the human condition. The syllabus includes translated works, from Ibsen to Ionesco, that explore the loss of individualism, empathy, and meaningful communication. In addition to “performing” each play as reader’s theater, students will create individual and collaborative responses demonstrating their understanding of each work.

*(Semester) Fall or Spring of Junior or Senior Year (0.5 Global Studies credit)*

## **Environmental Literature**

This course introduces students to representative texts in the broad genre of English-language literature about the natural environment. We will study seminal texts and those that represent the diversity of authors and cultural viewpoints that have found a home in the genre. Key areas of focus will include the way texts inspire each other and contribute to later development of the genre as well as the complex interplay by which nature writing both represents and influences the politics, cultural movements, economics, and scientific advancements of the society in which it is created. Students will receive instruction in a variety of rhetorical modes, including literary-critical essays, personal essays, journaling, and informational writing.

*(Semester) Fall or Spring of Junior or Senior Year*

## **Shakespeare**

Students will spend this course with a broad sampling of Shakespeare’s work, including *The Merchant of Venice*, *Othello*, *The Tempest*, *Measure for Measure*, and *Richard III*. We will delve into

these rich texts, focusing on both intellectual analysis and the potential for various effects on an audience. The structure of the class will rely largely on the discussion that emerges from reading the plays aloud together. Students will write responses and analytical papers, and they will scrutinize directing and acting choices in film versions.

*(Semester) Fall or Spring of Junior or Senior Year (0.5 Global Studies credit)*

## **African American Literature**

This elective aims to celebrate African American storytelling and its complex role in forming American identity. The class will trace what is a deeply rooted storytelling tradition and some ways in which it manifests in our world today. Students will examine two major texts—one fiction, one non-fiction—and a range of mediums including hymns, sermons, prayers, poetry, popular music, comedy, and visual art. Students will learn to identify patterns of expression and narration rooted in the African American experience that remain vibrant in contemporary culture.

*(Semester) Fall or Spring of Junior or Senior Year*

## **War Literature**

Students will read a variety of genres including poetry, songs, plays, novels, as well as excerpts from non-fiction works spanning from the Thirty-Years War through the American Civil War to World Wars I and II, Vietnam, and finally the wars in Afghanistan and Iraq. Students will be asked to use critical-thinking and problem-solving skills as they navigate reading and writing about the reality and humanity of the war experience. With each piece of literature, students will research the facts of the war and then hold them up to the experience as described in the literature. Students will be asked to write for a variety of audiences as they try both to make sense of something they are too young and too lucky to have experienced first hand and also to notice how these published authors have worked to capture war on the page.

*(Semester) Fall or Spring of Junior or Senior Year*

## **Latino American Literature**

This course will provide an introduction to Latino American literature and cultures in the United States from 1960 to the present, paying close attention to the historical and social events that have influenced the construction of Latino identities. We will analyze questions of racial, ethnic, sexual, and cultural identity in conversation with concepts such as diaspora, border identities, code-switching, and double-consciousness as represented in literature and popular culture. Students will analyze a variety of texts including novels, short stories, non-fiction, podcasts, and essays to explore a wide range of themes, including parental relationships, the tension of living between two cultures, and how one might negotiate language, colorism, classism, and identity formation.

*(Semester) Fall of Junior or Senior Year (0.5 Global Studies credit)*

## **AP English Language and Composition**

AP Language and Comp offer college-level writing assignments in expository, analytical, and argumentative modes. Readings come from non-fiction genres such as autobiography, criticism, the scientific essay, the political column, and the place narrative. Discussions focus on rhetorical technique, critical and analytical thinking, and logic. Students prepare drafts in and out of class and revise them with feedback from peers, taking the AP Exam in May.

*Prerequisite: Departmental approval (Semester) Spring of Junior or Senior Year*

## **AP English Literature and Composition**

This course refines students' skills with literary analysis, and it provides students with an intellectual framework within which some of the greatest works of all time can be placed. Regularly taught novels include Melville's *Moby-Dick*, Ellison's *Invisible Man*, and Woolf's *Mrs. Dalloway*. Other emphasized writers include Dickinson, Frost, and Shakespeare. Students also read novels and plays, independently, from an "outside reading" list. AP English Lit works toward helping students develop an appreciation for literary art. Students take the AP Exam in May.

*Prerequisite: Departmental approval (Senior Year) (0.5 Global Studies credit)*

# History

The History Department emphasizes teaching students the skills and knowledge necessary for civic competence and the historical perspective critical for interpreting the complex issues of today and tomorrow. The teachers strive to instill a love of learning, exploration, and inquiry as an inspiration for further study. They work closely together to develop teaching approaches that motivate student learning and use a variety of cooperative learning, role-playing, and debate activities to promote historical thinking. The students learn to interpret primary and secondary sources, to think critically, and to write analytically. The department endeavors to develop students who have the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.

## **Global Civics: Government Structures and Economic Systems**

Global Civics focuses on the roles and responsibilities of citizens from local, state, national, and global perspectives. Teachers place emphasis on developing both the knowledge and skills necessary to be an active and engaged citizen. Students gain an awareness and appreciation for government and economic systems and how those American systems compare to others throughout the world. Teachers incorporate simulations and interactive activities to develop 21st-century skills such as critical thinking, research, problem-solving, creativity, innovation, communication, and collaboration. In order to best prepare students to be engaged citizens in the world in which they live, 21st-century technology tools and skills will be incorporated throughout the course.

*No prerequisite (Year) (1 Global Studies credit)*

## **World History**

World History fosters a greater appreciation for cultural diversity through a better understanding of how different societies have developed through time. Students learn to recognize how various aspects of our culture have come to us from other times and places. The course emphasizes a geographical & thematic development of events from ancient times to the Age of Globalization. This approach facilitates an understanding of the interconnected nature between societies as well as a framework for viewing the complexity of current issues.

*No prerequisite (Year) (1 Global Studies credit)*

## **AP World History: Modern**

The AP World History course will survey changes and continuities within Afroeurasian and American societies from 1200 CE to the present, concentrating on six overall themes: governance, innovation, culture, economic systems, social structures, and interactions between humans and the environment. This course is also designed to establish and enhance historical thinking skills using stimulus-based tests, essay writing, and document analysis. Students will also further develop their reading

comprehension and critical thinking skills. All enrolled students are required to take the AP exam in May.

*Prerequisite: Department approval (Year) (1 Global Studies credit).*

## **United States History**

This course is a general survey of United States history from the European encounter of the Americas to the present day. Students participate in a wide variety of activities and role-playing simulations and learn advanced interpretive reading, writing, and speaking skills. The curriculum concentrates on colonial settlement, the American Revolution and the Constitution, the growth of democracy, the Civil War, industrialization and its effects, the development of the U.S. as a world power, and modern America. Students further develop their historical thinking skills as they strive to understand the past. Students learn the value of historical perspective for interpreting today's social and political issues.

*No prerequisite (Year)*

## **AP United States History**

AP United States history is a college-level course that seeks to apprentice students to the practice of history by explicitly stressing the development of historical thinking skills and reasoning processes while learning about the past. The reasoning processes of causation, comparison, and continuity and change over time focus on “thinking historically” (the habits of mind that historians use when they approach the past in a critical way), while the skills of crafting historical arguments from historical evidence and historical interpretation are used by historians when they construct, review and assess arguments about United States history. Students will use these processes and skills to interrogate a variety of sources including maps, graphs, charts, images, audio-visuials, and primary and secondary readings. These materials, coupled with a college-level textbook, help students to understand the relationship between themes and key concepts. The course content provides students with an in-depth study of critical trends and moments that have shaped our nation as well as an understanding of the historiography of those processes. The teachers emphasize that understanding the past enhances people's ability to confront current and future situations. All enrolled students are required to take the AP exam in May.

*Prerequisite: Department approval (Year)*

## **AP European History**

This course allows students to investigate the major events and ideas of European history from the Renaissance to the present. It is designed to facilitate a more complete understanding of the cultural diversity of the region as well as the complexity of current European and world affairs. Although the class has a strong focus on political events, there will also be considerable development of religious, artistic, economic, social and intellectual themes. Students will be expected to work with both original and secondary sources to develop their sense of history as an interpretive discipline. They will be encouraged to develop sophisticated approaches in their essay writing with a special emphasis on

the use of evidence and the development of an academic argument. All enrolled students are required to take the AP exam in May.

*Prerequisite: Department approval (Year) (1 Global Studies credit)*

## **AP U.S. Government and Politics**

This college-level course is designed to give highly motivated students a critical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret American politics and an analysis of specific case studies. It also emphasizes familiarity with the various institutions, groups, beliefs, and ideas that make up American political philosophies. Students examine the following topics: Constitutional underpinnings, political beliefs and behaviors, political parties and interest groups, institutions (Legislative, Judiciary, Executive) and public policy processes, and civil rights and civil liberties. The teacher uses cooperative-learning simulations, seminar-style discussions, data analysis, and interpretive writings to process information. In addition to the advanced placement curriculum, students design and stage a series of community-wide civic engagement projects. For example, in the past, the class created NCGOVOTE.org to increase awareness of low voter turnout in North Carolina. Students also attend city council and county commission meetings as part of a civic engagement requirement of the course. All enrolled students are required to take the AP exam in May.

*Prerequisite: Department approval (Year)*

## **AP Human Geography**

AP Human Geography is a college-level course designed to promote global literacy and citizenship through the study of the contemporary world and regional issues viewed through a geographic lens. Students will develop their communication and critical thinking skills as well as geographic literacy and empathy. Units of study focus on themes such as population, the political organization of space, agricultural and rural land use, industrialization and economic development, and cities and urban land use. The course will utilize a problem-based approach to examine issues such as the plight of refugees, population growth and its environmental and political consequences, the role of religion in culture and politics, the role of race in urban development, the role of women in the developing world, and the role of micro-financing in the world economy. Course activities will include simulations, research assignments, and collaborative problem-solving. All enrolled students are required to take the AP exam in May.

*Prerequisite: Department approval (Year) (1 Global Studies credit)*

## **AP Microeconomics**

Through this course, students gain a thorough understanding of the economic principles that relate to consumers and producers, and they learn about basic economic concepts, such as opportunity costs and comparative advantage. This course, which emphasizes the nature and function of product markets, includes a study of supply and demand models, the theory of consumer choice, production

and cost analysis, and the theory of the firm. Students also learn about factor markets - markets of labor, capital, and land. Finally, the course includes a study of economic efficiency and equity as well as the role of government in economic affairs. All enrolled students are required to take the AP exam in May.

*Prerequisite: Algebra II and department approval (Year)*

## **AP Macroeconomics**

Through this course, students gain a thorough understanding of the economic principles that relate to an economic system as a whole. Students learn about measures of economic performance, including GDP, unemployment, and inflation. This course emphasizes aggregate demand and aggregate supply analysis, including fiscal and monetary policy analysis for both the short-run and the long-run. Students learn about the financial sector, with emphasis on money supply and demand. Finally, the course includes a study of long-run economic growth and international trade. All enrolled students are required to take the AP exam in May.

*Prerequisite: Algebra II and department approval (Year) (1 Global Studies credit)*

## **AP Psychology**

Advanced Placement Psychology is a college-level course that covers a wide number of detailed topics in Psychology. Students learn the basic concepts behind psychological experimentation and use them to better understand the past and current theories and contributions of prominent psychologists. The specific areas covered in this course are social psychology, research methods, neuroscience, nature/nurture, development, sensation and perception, learning, memory, cognitive processes and language, intelligence, motivation, emotion, personality, and psychological disorders and therapies. Classroom methods include a balance of lecture, discussion, interactive activities, and demonstrations. This course seeks to illustrate the extent to which psychology is involved in the everyday lives of students. All enrolled students are required to take the AP exam in May.

*Prerequisite: Department approval (Year)*

## **Introduction to Psychology**

This course gives a broad overview of the field of psychology. A focus throughout the course is for students to develop knowledge of how various areas of psychology apply to their everyday lives. Topics of study include the basics of psychological science, nature and nurture, sleep, human development, neuroscience, mindfulness, and habit formation. Classroom methods include fieldwork, design challenges, discussion, interactive activities, and demonstrations. An interest in how individuals think, feel, and act is essential, as students will be asked to regularly express themselves in class and in assignments with regard to the experience of humanity. Throughout this course, students gain insight into their own behaviors and mental processes, as well as an appreciation for the similarities and differences among classmates.

*No prerequisite (Semester) Fall or Spring Term*

## **Media in the 20th and 21st Centuries**

This course will examine the role of media in modern history. Students will study the political, economic, and cultural impact of the media. As students are deluged with media messages each day, the ability to utilize critical thinking skills to deconstruct and analyze media is an essential skill. In the 21st century, students can consume, produce, share, evaluate, and interact with new media, and each unit of the course addresses these capabilities. Students will analyze advertisements, political campaigns, the news media, photojournalism, media conglomeration, and examine the impact of social media. Techniques of persuasion and technical methods of filming and editing that are used to shape meaning in media productions will be points of emphasis. The general content of other aspects of the media (television, movies, popular music, and video games) will also be analyzed, with a special focus on the portrayal of gender, race, and violence. Literacy involves both reading and writing; therefore, the course will also teach students how to construct their own video projects using the iMovie program.

*No prerequisite (Semester) Fall or Spring Term*

## **Comparative Government and Politics**

Students in Comparative Government and Politics will study the conceptual tools necessary to develop an understanding of some of the world's diverse political structures and practices. Students will examine both specific countries and their governments and general concepts used to interpret the political relationships and institutions found in virtually all national politics. Students will study the governmental systems of the United Kingdom, Nigeria, China, Russia, Iran, and Mexico, providing a foundation for developing paradigms of different types of political systems. Using these countries as case studies, students will also seek to understand the political implications of different levels of economic development and globalization.

*No prerequisite (Semester) Fall Term (0.5 Global Studies credit)*

## **Nationalism in the 18th, 19th, and 20th Centuries**

Students in this course will look to explore the wide-ranging ways nationalism rose and developed in the 18th, 19th, and 20th centuries in the USA, Ireland, Russia, and Japan. They will trace these nations' extremely similar historical trajectories, evaluating the dissolution of monarchical connections, transition away from predominantly agricultural economies, and forced rapid modernization to interrogate how these countries ended at very different points near the conclusion of the 20th century. In investigating the intertwined histories of these nations over the last three centuries, students will analyze some of the most powerful institutions, artistic figures, economic practices, and governments in world history and bear witness to how those affected by them sought to preserve their own humanity and identity. Students will read, watch, analyze, discuss, and write about texts (literary, auditory, and visual), media, and performances with an eye toward developing analytical skills and a more wide-ranging understanding of the interactions between various

geopolitical and economic systems. Students will then examine if regional or national identities offer inroads to inquire about the notion of a shared international experience and the ways humans remain connected, even on opposite sides of the globe. Class activities include role-playing simulations, debates, small and large group discussions, interviews, and presentations.

*No prerequisite (Semester) Spring Term (0.5 Global Studies credit)*

## **Global Studies: Genocide**

This course will introduce students to the foundations of the Universal Declaration of Human Rights granted to all persons following the Second World War. Students will learn the history and application of the UDHR and will study and investigate past genocides and human rights violations, as well as current human rights violations through case studies. This course will utilize project-based learning, discussions, debates, and critical analysis to fully comprehend the how and why behind these atrocities and to evaluate possible responses. The course will help students develop their research skills and writing skills as they dive into the world of historical investigation and analysis.

*No prerequisite (Semester) Spring Term (0.5 Global Studies credit)*

## **Global Studies: Europe and Latin America**

Students will examine regional trends and cultures through a multi-disciplinary exploration of Europe and Latin America. They will investigate recent events through a historical lens, practice empathy through the use of primary sources, and generate research-driven conclusions and policy recommendations. The course will focus on developing the skills necessary to be an active and engaged global citizen in the 21st century: exemplary written and oral communication, critical policy analysis, advocacy, and social responsibility, research based on a variety of reliable sources, geographic awareness, collaboration which welcomes multiple perspectives, cultural competence, excellent listening skills, and solutions-based thinking.

*No prerequisite (Semester) Fall Term (0.5 Global Studies credit)*

## **Decolonization**

Students in this course will read, watch, analyze, discuss, and write about texts (literary, auditory, and visual) with an eye toward developing analytical skills and a more wide-ranging understanding of colonialism. Students will explore the myriad ways people have been affected globally by the economic, emotional, and psychological effects of overseas subjugation and the solutions various peoples have sought to address the problems and consequences inherent in colonial rule. Students will also look to investigate the lingering effects of this system, frequently placing it in conversation with imperialism, as they consult texts that grapple with political and cultural independence as well as knowable truths about the human condition. The primary framework will focus on texts, both nonfiction and fiction, concentrated on and emerging from the Indian subcontinent, Africa, Southeast Asia, the Caribbean, and the Americas. Students will often work with partners or in groups to discuss topics of interest from the readings as well as writing. Research and contextualization of historical and

current events related to slavery, migration, suppression, resistance, difference, race, gender, sport, philosophy, religion, and place will occur frequently. Class activities include role-playing simulations, debates, small and large group discussions, interviews, and presentations.

*No prerequisite (Semester) Fall Term (0.5 Global Studies credit)*

## **Legal Issues**

What does it mean to think like a lawyer? How can logic help us see multiple sides to an issue? And, importantly, can legal thinking help us resolve the challenges facing the global population? These questions are at the core of Introduction to Legal Issues, and anchor our multifaceted understanding of what thinking like a lawyer encompasses. As they move through the course, students explore the impact of the law by asking and responding to the following question: How does legal thinking help me understand myself, others, and the world? Using an interdisciplinary approach, students explore legal case studies wherein they apply what they learn to real court cases drawn from around the world. Students then take on the roles of both lawyer and judge to argue for, and decide upon, a major legal decision pulled from the day's most compelling headlines. Throughout the course, students collaborate on a variety of activities and assessments, which enable learning about each other's unique perspectives, while building logic-based reasoning, research, and critical thinking skills in service of understanding the use and application of the law.

*No prerequisite (Semester) Spring Term*

## **Comparative Religions**

This course will seek to enhance a student's understanding of the world's religions by creating a classroom environment that encourages the discussion of the history and beliefs of philosophies and religions such as Christianity, Judaism, Islam, Hinduism and Buddhism. Students will expand on what they have learned about the major world religions in World History by examining primary and secondary source readings and by participating in philosophical discussions. The course will introduce students to ways of thinking that go beyond the typical history course and will ask students to investigate a multitude of possibilities in the religious and philosophical world.

*No prerequisite (Semester) Fall Term (0.5 Global Studies credit)*

## **Economics of Development**

Students will explore economic concepts related to international trade, foreign exchange markets, foreign direct investment, and economic growth, with an overall focus on how these topics relate to economic dependencies and development, particularly in Latin American countries. Instructional strategies will be student-centered, with an emphasis on peer-led discussions of key topics, examination of differing perspectives, analysis of real-world data, and collaborative problem-solving. Students may take the course during or after completing AP Economics, but the AP course is not a prerequisite.

*Prerequisite: Global Civics (Semester) Spring Term (0.5 Global Studies credit)*

## **Global Studies: Africa**

Students will examine regional trends and cultures through a multi-disciplinary exploration of Sub-Saharan Africa. They will investigate recent events through a historical lens, practice empathy through the use of primary sources, and generate research-driven conclusions and policy recommendations. The course will focus on developing the skills necessary to be an active and engaged global citizen in the 21st century: exemplary written and oral communication, critical policy analysis, advocacy, and social responsibility, research based on a variety of reliable sources, geographic awareness, and collaboration which welcomes multiple perspectives, cultural competence, excellent listening skills, and solutions-based thinking. Students will conduct in-depth examinations of several countries including South Africa, the Democratic Republic of Congo, Rwanda, and Nigeria.

*No prerequisite (Semester) Spring Term (0.5 Global Studies credit)*

## **Global Studies: Asia**

Students will examine regional trends and cultures through a multi-disciplinary exploration of Asia. They will investigate recent events through a historical lens, practice empathy through the use of primary sources, and generate research-driven conclusions and policy recommendations. The course will focus on developing the skills necessary to be an active and engaged global citizen in the 21st century: exemplary written and oral communication, critical policy analysis, advocacy, and social responsibility, research based on a variety of reliable sources, geographic awareness, collaboration which welcomes multiple perspectives, cultural competence, excellent listening skills, and solutions-based thinking. Students will conduct in-depth examinations of several countries including China, the Koreas, Cambodia, Japan, and India.

*No prerequisite (Semester) Spring Term (0.5 Global Studies credit)*

## **Global Studies: Middle East and North Africa**

Students will examine regional trends and cultures through a multi-disciplinary exploration of the Middle East and North Africa. They will investigate recent events through a historical lens, practice empathy through the use of primary sources, and generate research-driven conclusions and policy recommendations. The course will focus on developing the skills necessary to be an active and engaged global citizen in the 21st century: exemplary written and oral communication, critical policy analysis, advocacy, and social responsibility, research based on a variety of reliable sources, geographic awareness, and collaboration which welcomes multiple perspectives, cultural competence, excellent listening skills, and solutions-based thinking.

*No prerequisite (Semester) Spring Term (0.5 Global Studies credit)*

## **Human Rights & Reconciliation: South Africa**

The purpose of this class is to introduce students to the political and social institutions designed to prevent majority rule and the rise of the global human rights movement that challenged those institutions. Students will also have an opportunity to compare the South African anti-apartheid movement with the domestic black freedom struggle of the United States. Students will examine themes concerning human rights, social justice, civil rights, and reconciliation. The curriculum will be divided as follows: Pre-Colonial Southern Africa, Colonial History, the Apartheid Years, Post-Apartheid Reconciliation, and South Africa in the 21st Century. Students will further develop their research and writing skills as they explore South Africa through historical investigation and analysis.

*No prerequisite (Offered only when Global Trip to South Africa occurs) (Semester) Spring Term (0.5 Global Studies credit)*

## **Global Leadership (Advanced)**

Students in this course will be empowered to become more effective collaborators and leaders in a globally interconnected world. Students will be challenged to think strategically and reflectively as they participate in individual and collective activities designed to help students explore the skill set needed for effective, thoughtful, and ethical leadership in collaborative environments. Students will complete a research project, collaborative projects, and an exit interview process. Students will develop a deeper understanding of their personal agency and will approach problem-solving with enhanced curiosity, compassion, and commitment.

*Prerequisite: Required for seniors in the Global Studies Diploma Program (Semester) Spring Term (0.5 Global Studies credit)*

# Mathematics

The primary goal of the Mathematics Department is to assist students in developing skills to solve problems, analyze data, and use technology. Teachers and students cooperate in the process of exploring mathematical reasoning, conjectures, and problem-solving. Students use both inductive and deductive processes. The bases for instruction are the concepts and algorithms of mathematics, but real-world applications of the theories comprise a significant portion of instructional time. Students are required to take four mathematics courses during their Upper School years, with Algebra I, Geometry, Algebra II, and Precalculus being the required courses for the majority of students. Students in Advanced classes have several options in completing the four required courses.

## Algebra I

This first-year course in Algebra is designed to integrate concepts studied in both algebra and physics. Students develop a deeper understanding of the interconnectedness between these disciplines using real-world applications. Students study families of functions and realistic problems through activities that engage them in data collection, the use of tables and graphs to organize and display data, the development of symbolic rules to model relations among important variables, and meaningful questions about those relations. Being able to use algebra comfortably and confidently will enable students to develop a more powerful understanding of physics. The foundational algebraic skills taught include a study of lines and linear functions, systems of linear equations and inequalities, polynomials, factoring, quadratic functions, algebraic fractions, rational and irrational numbers, absolute values, and an introduction to statistical modeling.

*Prerequisite: Algebra Topics (Year)*

## Geometry (Advanced)

With department approval, a student may elect to take Advanced Geometry, which offers a rigorous treatment of topics and an in-depth development of direct and indirect proofs. Topics include angle relationships, congruence, lines, planes, similarity, circles, polygons, coordinate geometry, transformational geometry, and right and oblique triangle trigonometry.

*Prerequisite: Algebra I (Advanced) or department approval (Year)*

## Geometry Accelerated

This course teaches students how mathematics can develop from a postulate system using deductive reasoning. Students think in spatial terms incorporating points, lines, planes, congruence, and similarity. The students will work with triangles, polygons, circles, and geometric solids. Students will use mathematical proof to justify statements. Students will explore classic geometric constructions. Teachers introduce coordinate geometry and transformational geometry as time permits.

*Prerequisite: Algebra I (Year) and Department Approval.*

## **Geometry**

Students in this course will study geometric figures such as points, lines, planes, triangles, polygons, circles, and geometric solids. Students will explore relationships such as congruence, and similarity. Students learn to approach a problem with a specific goal in mind and logically develop the appropriate steps to reach their conclusion using deductive reasoning. Students will strengthen algebra skills by modeling geometric properties with algebraic equations. Geometry content required for ACT and SAT will be covered.

*Prerequisite: Algebra I (Year)*

## **Algebra II/Trigonometry (Advanced)**

Students study functions and their properties in the following areas: linear, quadratic, polynomial, rational, power, exponential, logarithmic, and trigonometric. Students increase their knowledge of mathematical systems using logic, set theory, and proof. Students become experts with graphing calculators, which aid them in understanding relationships. Students study the concepts of functions, inverses, factoring, systems of equations, conic sections, sequences, and series, and they apply these concepts to solve a variety of real-world applications and word problems. In all areas, students seek to understand multiple treatments of functions: algebraic, graphical, numerical, and verbal.

*Prerequisite: Geometry (Advanced) or department approval (Year)*

## **Algebra II/Trigonometry Accelerated**

In this course, students expand upon their thinking skills by analyzing information and incorporating strategies for resolving problems. Students continue to integrate problem-solving throughout the year by exploring a variety of applications and word problems. Students study the concepts of functions, graphing, rational exponents/expressions, polynomial expressions, systems of equations, sequences, series, logarithms, conic sections, trigonometry, and an introduction to statistics. With the help of a graphing calculator, students look beyond the simple computed answers and seek an understanding of these concepts graphically as well as algebraically.

*Prerequisite: Geometry Accelerated (Year) or Geometry and Department Approval*

## **Algebra II**

This course includes a thorough review of Algebra I followed by an introduction to a study of the fundamentals of Algebra II including operations with polynomials, solving linear and quadratic equations, real and complex numbers, logarithms, graphing on the coordinate plane, inequalities, and functions. This course encourages students to develop abstract and independent thinking through the use of concrete examples. Students will be exposed to content required for SAT and ACT.

*Prerequisite: Geometry (Year)*

## **Precalculus (Advanced)**

Students will review linear and other polynomial equations. They will then study trigonometry, focusing on graphing of trigonometric functions, and using the Laws of Sines and Cosines. Additionally, students will study logarithmic and exponential functions, mathematical induction, conic sections, complex numbers, polar coordinates, parametric equations, probability, and statistics. The course will also include a unit on limits and continuity that will prepare students for a college-level calculus class. Students will use a graphing calculator as an integral part of the course, learning to link together the algebraic, numerical, and geometric representations of functions. Students taking this course will receive advanced credit.

*Prerequisite: Algebra II/Trigonometry Accelerated (This course is recommended for the student who anticipates needing a Calculus class at the college level.) (Year)*

## **Algebra III/Trigonometry**

This course will satisfy the four-year mathematics requirement. Students will not receive advanced credit. The first semester begins with an introduction to trigonometry through triangles, the unit circle, graphing sinusoids, and basic trigonometric proofs. The following units include a study of advanced algebraic topics (regression equations, graphing, and analysis) through the lens of personal finance. Students will use a variety of methods and techniques to analyze and solve “real-world” problems. Topics include consumer credit, loans, mortgages, and taxes. In a culminating activity at the end of the year, students will prepare a detailed personal budget.

*Prerequisite: Algebra II and department recommendation (This course is intended for a student who does not anticipate needing a Calculus course at the college level.) (Year)*

## **Math for the Social Sciences**

Students will learn about several areas of applied mathematics, particularly areas that can be applied in the social sciences and/or examined with an international perspective. The main topics of game theory, statistics, urban planning, growth models, and possibly voting/ apportionment represent a variety of different applications, while the small number of topics will allow for an in-depth examination of each topic, with an emphasis on global comparisons. Because of the focus on critical thinking and problem-solving, collaborative work will be an integral part of the course.

*Prerequisite: Algebra II (Semester) Fall Term(0.5 Global Studies credit)*

## **Analysis (Advanced)**

This advanced course is for students who are preparing for a college program that will be demanding in mathematics and science and will include a study of Calculus. The course develops a thorough analysis of polynomial, rational, exponential, and logarithmic functions. Analytic geometry and

trigonometry as well are included along with vectors, polar and parametric equations. Instruction also includes an introduction into the theory of limits, first derivatives, and their applications. Students master the use of the graphing calculator through application problems. This course is for students who plan to complete AB or Advanced Placement Calculus BC in their senior year.

*Prerequisite: Algebra II/Trigonometry Advanced or department approval. (Year)*

## **Calculus (Advanced)**

This course provides students with an introduction to the concepts of differential calculus and the applications of calculus. Students develop an understanding of calculus concepts and use these concepts in solving real-world problems. Students learn the concepts of a limit and how to evaluate a limit and learn to differentiate and integrate a variety of elementary functions. Students taking this course will receive advanced credit.

*Prerequisite: Precalculus (Year)*

## **AP Calculus AB**

Students in this course will learn the material necessary for the AP AB examination in Calculus. They will learn to evaluate limits, to differentiate and to integrate various elementary functions, and to apply those skills to problems in many different settings. Students will use a graphing calculator as an integral part of the course, learning to link together the algebraic, numerical, and geometric representations of functions, and will be required to use the calculator on the AP exam. At the completion of the course, all students are required to take the AP exam.

*Prerequisite: Analysis and department approval. (Year)*

## **AP Calculus BC**

Students in this course will learn the material necessary for the AP BC examination in Calculus. They will learn to evaluate limits, to differentiate and to integrate various elementary functions, and to apply those skills to problems in many different settings. They will also cover vector, polar and parametric equations and the calculus of infinite series. Students will use a graphing calculator as an integral part of the course, learning to link together the algebraic, numerical, and geometric representations of functions, and will be required to use the calculator on the AP exam. At the completion of the course, all students are required to take the AP exam.

*Prerequisite: Analysis and department approval. (Year)*

## **AP Statistics**

Students will use a graphing calculator and computer software as their method of discovery and understanding concepts, linking them algebraically, graphically, and numerically, as the AP Exam requires. Students will examine and simulate probability distributions in order to predict and estimate

future events. Students will investigate ways to analyze the relationship between two or more variables through the concepts of correlation and regression. At the completion of the course, all students are required to take the AP exam.

*Prerequisite: Precalculus and department approval. (Year)*

## **Calculus III (Advanced)**

This course follows BC Calculus and includes the study of multivariable functions, vector-valued functions in plane and space, curvature, double and triple integrals, vector analysis, and various engineering physical and mathematical applications. Students will explore three-dimensional relationships using computer software and examine advanced calculus topics as time permits. Offered when supported by course enrollment.

*Prerequisite: Advanced Placement Calculus BC. (Year)*

## **Linear Algebra (Advanced)**

The basic operations of linear algebra are those learned in algebra - addition, and multiplication to produce "linear combinations." But with vectors, the use of CAS (Computer Algebra System), 3D graphing applets, we move into three-dimensional space and n-dimensional space! Topics may include matrices and their applications, determinants, simultaneous linear equations, and elementary operations, vector spaces, Euclidean spaces, rank and inverses, inner products and 'best' approximations, systems of linear equations. Advanced credit is given. Offered when supported by course enrollment.

*Prerequisite: Analysis and department approval. (Semester) Fall Term*

## **Differential Equations (Advanced)**

Students will examine various differential equations and their solutions, Laplace Transforms, linear and nonlinear systems, series methods, Fourier Series, boundary value problems, and numerical methods. Advanced credit is given. Offered when supported by course enrollment.

*Prerequisite: AP Calculus and department approval. (Semester) Spring Term*

# Performing Arts

The performing arts department offers courses and performance opportunities in vocal and instrumental music and in theater. The department's goal is to allow students the freedom to explore their own creativity within the context of our various disciplines while challenging them to broaden their understanding and appreciation of the arts in general.

## Band

Students work in an ensemble setting to explore, rehearse, and perform varying styles of repertoire written for a wind band. This class continues to focus on the development of fundamental musical skills. Additional concentration on individual elements such as intonation, articulation, and technical facility are taught along with ensemble-level musical elements such as style, balance, and blend. In addition to concert performances both on and off-campus throughout the year, band members perform at athletic events as part of the pep band. Concert attire is required and will be issued on loan. This course may be repeated for credit.

*Prerequisite: Prior band experience. New students with prior instrumental experience should contact the band director. (Year)*

## Chorus

Chorus offers students the opportunity to sing music representing a variety of genres within an ensemble setting. Collaboration and problem-solving are skills used on a daily basis as the students work for unified tone quality and intonation. Performances throughout the year usually include two contest events, two formal concerts, and various campus performances. Concert attire is required and will be issued on loan. This course may be repeated for credit.

*No prerequisite but prior choral experience preferred. (Year) (.5 Global Studies credit allowed only once)*

## Jazz Ensemble

The Jazz Ensemble course provides students with instruction in the basics of performing in various jazz styles. Students receive practical preparation in jazz improvisation through group and individual rehearsal as well as the study of harmony, chord/scale relationships, melodic embellishment, motivic development, and common jazz rhythms and articulations. Students perform throughout the school year at various events, both on and off-campus. This course may be repeated for credit.

*Prerequisite: Audition is required. (Year)*

## Orchestra

This course offers instruction and performances of orchestral stringed instruments. The students work in an ensemble to master tone, intonation, technique, and interpretation of repertoire appropriate to their ability level. Several performances, including off-campus trips, are planned throughout the year. Concert attire is required and will be issued on loan. This course may be repeated for credit.

*Prerequisite: Prior orchestra experience. New students with prior orchestra experience should contact the Orchestra Director. (Year)*

## Theatre I: Acting in the Digital Age

This course will investigate storytelling and theatre through the digital lens of popular social media outlets, as well as explore the art of acting for TV/Film. The class will also study and watch performances of modern plays and musicals such as HADESTOWN, HAIRSPRAY, and DEAR EVAN HANSEN. In addition, students will focus on expressing themselves with greater confidence through improvisation, voice and speech, movement, scene work, and games. Students will practice critical thinking and will enjoy the collaboration associated with a theatre ensemble.

*No prerequisite (Semester) Fall or Spring Term*

## Theatre 360°

This course is for students who have taken Theatre I and want to dive deeper. Students will explore advanced acting techniques including Meisner and Stanislavski, musical theatre performance including dance and song, as well as modern plays, text/character analysis, and principles of good audition technique. Students will also explore the role of the theatre director and have the opportunity to write original scenes in which they direct their peers. This course will culminate in a final project of the students' choosing from one of the areas studied throughout the semester.

*Prerequisite: Theatre I (Semester) Spring Term*

## PDS Players

This course is for the student who loves to perform! Students will come together to form the PDS Players where they will perform in a one-act play, which will be presented during the semester for either the Lower or Middle School, depending on the theme or script chosen. The class will choose the script, audition for roles, then rehearse the play during class. Students will participate in all aspects of the production. In addition to the creative process of producing a show, students will learn how theater can be used for social or political critique, entertainment, or impact.

*Prerequisite: Successful completion of any Upper School theatre course (Semester) Fall Term*

## **Theatre Production and Design**

This course requires an active, creative student willing to work on a variety of tasks in a hands-on environment. Students will explore the various design elements of theatrical costumes, stage makeup, props, as well as stage management. In addition to design knowledge, students will learn hand and machine sewing skills, special effect makeup technique and application, and how to build hand props. Work in this course will also include participating in the design and build elements of school productions, giving students practical skills applicable to real-world settings.

*No Prerequisite (Semester) Fall or Spring Term*

## **(Re)Act: Theatre and Social Change**

Students in this course will explore major historical and social world events of the last twenty years through the study of modern plays. They will explore these theatrical texts through reading, research, analysis, and performance. There will also be study and emphasis on Augusto Boal's Theatre of the Oppressed, where students will work as a class to create a Forum Theatre piece about a social issue they would like to explore and discuss with the PDS community.

*No Prerequisite (Semester) Fall or Spring Term (0.5 Global Studies credit)*

## **Technical Theatre**

This hands-on course is for students who would like to explore the technical side of theatre. Students will design and build scenery, paint backdrops, focus-lighting instruments, create sound effects, and invent special effects.

*No Prerequisite (Semester) Fall or Spring Term*

## **Honors Band**

This course is for seniors who have successfully completed three years in the Upper School Band, meet audition requirements, and agree to fulfill additional course requirements set forth by the instructor. Students taking this course will receive advanced credit.

*Prerequisite: Department approval. (Year)*

## **Honors Chorus**

This course is for seniors who have successfully completed three years in the Upper School Chorus, meet audition requirements, and agree to fulfill additional course requirements set forth by the instructor. Students taking this course will receive advanced credit.

*Prerequisite: Department approval. (Year)*

## Honors Jazz Ensemble

This course is for seniors who have successfully completed three years in the Upper School Band or Jazz Ensemble, meet audition requirements, and agree to fulfill additional course requirements set forth by the instructor. Students taking this course will receive advanced credit.

*Prerequisite: Department approval. (Year)*

## Honors Orchestra

This course is for seniors who have successfully completed three years in the Upper School Orchestra, meet audition requirements, and agree to fulfill additional course requirements set forth by the instructor. Students taking this course will receive advanced credit.

*Prerequisite: Department approval. (Year)*

## AP Music Theory

Students study the aspects of melody, harmony, texture, rhythm, form, and to some extent, history and style. Students should enter this class with a knowledge of basic theory, including rhythmic patterns, pitch recognition, and key signatures. Additionally, they should demonstrate the ability to read and write musical notation and to perform vocally or instrumentally. Prior to enrollment, students must meet with the instructor to complete a pre-assessment with both aural and non-aural stimulus questions.

*Prerequisite: Successful completion of one year in US Band, US Chorus, US Orchestra, or Jazz Band. Department approval. (Year)*

# Physical Education and Health

*“A sound body is a prerequisite for a fully functioning person.”*

If we are to view the student as a whole, we must value his or her physical development as much as his or her intellectual, emotional, or social growth. Students are required to take PE and Health in the 9th grade for one unit of credit. Any student may exempt an additional 0.5 units by taking the PE exemption test and scoring at least 450 points. This test must be completed before the start of the second semester of the senior year.

## **Ninth Grade Health**

In today’s society, we are inundated with ideas about healthy living and what others suggest we do to improve our quality of life. It would be simple to believe and follow the first health theory thrown our way, but in so many cases, this may not improve our quality of life, but instead have a reverse effect. With this in mind, the ninth grade health course is designed to empower students to follow three simple steps to attack and analyze relevant health topics. Students will be equipped with tools and strategies to enhance all six aspects of their health; Spiritual, Mental, Physical, Intellectual, Environmental, & Social. First, students must research and acquire knowledge about the subject. Second, they must analyze their research and determine what their attitude is about the subject. Finally, the students are challenged to look at pre-existing behaviors that impact the subject and set goals to make any necessary changes to improve their quality of life.

*No Prerequisite. (Semester) Fall Term or Spring Term*

## **P.E. – Lifetime Wellness**

This course is designed to help students become physically literate individuals. It is a unique P.E. course as it has a substantial emphasis on the cognitive as well as the psychomotor ability of the student. Students will study important concepts and principles of fitness, health, and wellness through the use of the Fitness for Life iBook. They will apply these principles physically through the use of heart rate monitors, peer and self-assessments of weight training techniques through video analysis, and fitness lab testing. Additionally, the course culminates with a major project in which students will develop and implement a personal fitness program. Students will experience a variety of physical activities including yoga and high-intensity interval training. Ultimately, students will work towards understanding self-management skills that will promote healthy lifestyles.

*No Prerequisite (Semester) Fall Term or Spring Term*

## **P.E. – Athletic Development**

Personal strength and movement enhancement are two of the major goals of this course. Students participating in interscholastic athletics, as well as non-athletes, will enjoy and benefit from the

course. Training techniques include Olympic lifts (ground-based multi-joint movements), strength lifts, metabolic conditioning, plyometrics, agility, speed and acceleration drills, core stability, and flexibility of movement. Video analysis of the movements in class will be used to correct, improve, and learn new techniques.

*Prerequisite: P.E. Lifetime Wellness (Semester) Fall Term or Spring Term*

## **P.E. – Dancercise**

Students express themselves artistically while receiving numerous health-related fitness benefits in this course. Students learn techniques from Jazz to Hip Hop as they push themselves to improve their level of fitness. This course may only be taken once for a half unit of credit.

*Prerequisite: P.E. – Lifetime Wellness (Semester) Fall Term or Spring Term*

## **P.E. - Dancercise II**

The aim of this course is to give students advanced instruction and further exposure to dance and hatha yoga while providing an athletic and creative outlet. Students will learn how to properly stretch and physically warm their bodies up for dance to help improve their mobility and flexibility. Students will continue building on their previous Dancercise knowledge by learning and executing advanced movements in jazz and ballet. Students will be introduced to different variations of advanced hatha yoga and mindfulness exercises.

*Prerequisite: P.E. - Lifetime Wellness & Dancercise (Semester) Fall Term or Spring Term*

## **P.E. - Yoga and Mindfulness**

The aim of this course is for students to experience the mental and physical benefits of daily yoga and mindfulness practice. In this course students will gain a deep understanding of the history and philosophy of yoga to accompany their physical daily practice.

They will achieve proper placement of yoga poses and vinyasas. Through daily practices students will understand and experience first hand the mental and physical benefits of practicing yoga in their daily lives. Yoga and mindfulness has been proven to help adolescents cope with daily stresses and anxieties stemming from mental health, social interaction, academics, athletics and social media.

*Prerequisite: P.E. - Lifetime Wellness (Semester) Fall Term or Spring Term (0.5 Global Studies credit)*

## **P.E. – International Games**

As with our global studies program, this course will assist in teaching our students to appreciate and value the differences in people throughout the world. The course will combine core fitness/sports components with the history and participation of games from a variety of countries, such as Sepak Takraw (Thailand), Floorball (Scandinavia), and Gaelic Football (Ireland). Students will discuss the origin, rules, strategies, and techniques needed to participate in the sport. Additionally, students will

focus on improving their physical fitness through a variety of activities while having their heart rate monitored.

*Prerequisite: P.E. Lifetime Wellness (Semester) Fall Term or Spring Term (0.5 Global Studies credit)*

## **P.E. – Life Fitness**

This course is designed for self-motivated students who are ready to acknowledge fitness as it will be when they leave PDS. Students will be responsible for reaching their fitness goals on their own time, outside of school hours, through various venues. A physical education teacher will monitor them through online journals and activity monitors. Additionally, students analyze their nutritional intake through journals or interviews, and complete a fitness portfolio, and a pre and post fitness test. Students who are interested in this course must be willing to exercise on their time. .

*Prerequisite: P.E. - Lifetime Wellness; Life Fitness is available only to Juniors Fall Term or Spring Term and to Seniors Fall Term only*

## **P.E. – Early Bird Athletic Development**

Personal strength and movement enhancement are two of the major goals of this course. Students participating in interscholastic athletics, as well as non-athletes, will enjoy and benefit from the course. Training techniques include Olympic lifts (ground-based multi-joint movements), strength lifts, metabolic conditioning, plyometrics, agility, speed and acceleration drills, core stability, and flexibility of movement. Video analysis of the movements in class will be used to correct, improve, and learn new techniques. This course will meet before school from 7:00 am to 7:45 am.

*Prerequisite: P.E. Lifetime Wellness (Semester) Fall Term or Spring Term*

# Science

The primary goals of the Science Department are to develop a correct understanding of scientific processes and phenomena, through inquiry and modeling methods. The very nature of laboratory investigations promotes students' ability to think critically, work collaboratively, and communicate effectively. The Science Department believes that all students should have a foundation in each of the sciences and therefore requires students to take all three basic courses - physics, chemistry, and biology - as minimal preparation for college. There is a wide range of elective and advanced studies offered beyond the basic course of study.

## Physics I

Physics I is a modeling-based physics course that gives students an understanding of the fundamental concepts and laws that govern the world. Using a variety of techniques for collecting and analyzing data, students develop models to describe fundamental phenomena. Although conceptual understanding is the emphasis of this course, students use algebra to express quantitative relationships and draw conclusions, in addition to developing skills in problem-solving and analytical thinking. Topics include motion, forces, energy, and electrostatics.

*No prerequisite (Year)*

## Physics I Accelerated

Physics I Accelerated is a modeling-based physics course that gives students an understanding of the fundamental concepts and laws that govern the world. Using a variety of techniques for collecting and analyzing data, students develop models to describe fundamental phenomena, in addition to developing skills in problem-solving and analytical thinking. Physics I Accelerated moves at a faster pace, investigates topics at greater depth, includes additional models, and is more mathematically rigorous than Physics I. Topics include motion, forces, circular motion, energy, electrostatics, and waves.

*Prerequisite: High level of achievement on the placement test and teacher recommendation (Year)*

## Chemistry I

Chemistry I students develop a foundation in the basic topics of chemistry that include the study of matter, its composition, periodicity, energy, and reactions. Laboratory investigations and activities reinforce these concepts and emphasize the development of problem-solving skills. In addition, students will develop models to explain the structure, properties, and interactions of matter.

*Prerequisite: Physics I (Year)*

## Chemistry I Accelerated

This first-year chemistry course will investigate the topics that are described in the course description of Chemistry I. The accelerated class is designed for those students who have a strong interest in science and exploring chemistry at a greater depth. The accelerated class moves at a faster pace and investigates topics in more depth. It is very highly recommended for any student who is considering AP sciences in the future.

*Prerequisites: Physics I Accelerated with 87 average or Physics I with 93 average and departmental approval (Year)*

## Biology I

This college preparatory course is based on cellular biology and builds upon topics learned in Chemistry. Biology covers basic ecology, basic human anatomy and physiology, cell biology and evolution with an emphasis on the molecular underpinnings that drive cellular processes. These concepts are linked to healthy decisions that enable cell processes to run properly over a lifetime. Laboratory investigations, group work and projects are utilized to improve logical thinking, teach scientific method, and reinforce concepts. The anatomy and physiology of mammals are investigated by means of dissection.

*Prerequisite: Chemistry I or Chemistry I Accelerated (Year)*

## Biology I Accelerated

This course is based on molecular/cellular biology and builds upon topics learned in Chemistry. The accelerated class differs significantly from the introductory biology course with respect to the range and depth of topics covered, pace of instruction, and longer-term guided- independent laboratory work conducted by students. Laboratory investigations are a central component of this course and promote a practical application of concepts covered in class. The anatomy and physiology of mammals are investigated by means of dissection.

*Prerequisites: Chemistry I Accelerated with 87 average or Chemistry I with 93 average and departmental approval (Year)*

## Anatomy and Physiology

Students learn anatomy and physiology of the human body in the classroom and in the laboratory. Pairs of students will work together on a cat dissection throughout the entire semester. Students apply and showcase their knowledge by creating portfolios of their dissection work.

*Prerequisite: Biology (can be taken concurrently with department approval) (Semester) Fall Term*

## **Applied Sports Anatomy**

This course is designed to help students become more knowledgeable about athletic injuries. Students will be instructed on the musculoskeletal anatomy associated with the major joints of the body as well as the initial and follow-up phases of injury management. Students will be responsible for learning practical assessment, rehabilitative techniques, and taping techniques. Additionally, students will be expected to put in 15 hours of service as student athletic trainers for the sports teams at PDS where they can apply the skills they learn in class.

*No Prerequisite (Semester) Fall Term or Spring Term*

## **Astronomy**

Students study basic concepts and the overall framework of stars, galaxies, and our solar system, in addition to the composition, structure, and origins of the universe. Students study, observe, gather information, and hypothesize about features of the celestial sky. Lab activities include the use of Starry Night Computer programs and online interactive learning activities to reinforce concepts.

*Prerequisite: Physics I (Semester) Spring Term*

## **Bioethics/Biotechnology**

In this lab and case-study based course, students will explore the intersection of bioethics and biotechnology, learning techniques that define 21st-century biology. In the laboratory, students will utilize the basic tools of biotechnology including micropipettes, PCR, DNA isolation, restriction fragment analysis, and gel electrophoresis. Students will struggle with the ethical implications of genetically modified foods, transgenic organisms, genome privacy, and cloning. Students will discuss recent advances that offer the possibility of curing disease, producing organs, or extending human life.

*Prerequisites: Chemistry, Biology (can be taken concurrently with department approval) (Semester) Spring Term (0.5 Global Studies credit)*

## **Engineering Design Challenges**

This project-based engineering course challenges students to apply physics and math principles to engineer solutions to problems. The projects cover multiple engineering disciplines.

*Prerequisite: Physics I and Algebra I (Semester) Fall Term*

## **Environmental Studies: Rethinking Sustainability in the 21st Century**

This course takes students on a multidisciplinary exploration of the current trend in urban farming. Topics covered include US agriculture and food system history, agricultural entrepreneurialism, social and environmental activism, and agricultural science. Course materials include a variety of readings, films, guest lectures, and field trips. In addition, the course offers experiential learning through labs

and an introduction to basic horticultural practices with hands-on activities in Charger Gardens. As a culminating project, students grow and market the produce like an actual urban farm/market garden.

*Prerequisite: Chemistry (can be taken concurrently) (Semester) Spring Term (0.5 Global Studies credit)*

## **Meteorology**

The meteorology course is designed to present students with a detailed study of atmospheric science. Theoretical applications of the structure of the atmosphere, its energy, motion, and moisture are studied and applied in a variety of lab activities. Students will be trained to collect weather data on a daily basis using the NOAA.gov website and online learning activities to reinforce concepts. The course also teaches the concepts of weather forecasting.

*Prerequisite: Physics I (Fall Term)*

## **Neuroscience**

This course provides students with an introduction to neuroscience from a biological perspective focusing on the cellular and molecular functioning of the nervous system. The course is designed to be hands-on and with learning through experimentation and laboratory guided inquiry investigation. Students will record electrical activity from nerves and muscles, record electrical activity in plants, and investigate how chemicals affect the function of neurons.

*Prerequisite: Chemistry, Biology (can be taken concurrently with departmental approval) (Semester) Spring Term*

## **Physics II**

Physics II is a modeling-based course that builds on the concepts studied in Physics I. Using a variety of techniques for collecting and analyzing data, students develop models to describe fundamental phenomena. Topics include wave motion, optics, circuits, nuclear physics, and modern physics.

*Prerequisites: Physics I and Geometry (Semester) Fall Term*

## **STEM Research and Design**

This course offers students the opportunity to pursue multidisciplinary research challenges in science, technology, engineering, and math. Students will choose their own research project, design and conduct experiments, and communicate the results by the end of the semester. Students will receive guidance not only from their instructor but other science department faculty as well.

*Prerequisite: Physics I and Algebra I (Semester) Spring Term*

## AP Biology

Advanced Placement Biology differs significantly from the introductory biology courses with respect to the range and depth of topics covered, pace of instruction, the laboratory work done by students, and the time and effort required of students. Instruction follows The College Board syllabus which is organized around 4 Big Ideas: evolution, energetics, information storage and transmission, and systems interactions. The double class periods each day provide time for lecture, demonstration, problem-solving, and college-level laboratory experiences. All students take the AP Biology exam at the end of the course.

*Prerequisite: Chemistry I Accelerated with 87 average or Chemistry I with a 93 average. Department approval (Year)*

## AP Chemistry

AP Chemistry students study, in-depth, some of the important concepts of Chemistry beyond the scope of the high school curriculum. Such areas include atomic theory, chemical kinetics, thermodynamics, and equilibrium. The curriculum follows the recommended outline of topics of the College Board. The double class period each day provides ample time for lecture, demonstration, problem-solving, and laboratory investigations. All students take the AP examination at the end of the course.

*Prerequisite: 87 average in Chemistry I Accelerated.*

*Corequisite: Analysis or higher math and science department approval (Year)*

## AP Environmental Science

The goal of this course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. This is a multidisciplinary course that requires students to synthesize ideas from physics, chemistry, biology, geology, geography, economics, history, and government courses. This course includes a strong laboratory and field investigation component. Students who score well on the AP exam can earn one semester of college credit for this course.

*Prerequisites: Chemistry I Accelerated and Biology I Accelerated or AP Biology with 87 averages or Chemistry I and Biology I with 93 averages and Department Approval. (Year) (1 Global Studies credit)*

## AP Physics

Students develop an understanding of basic concepts in classical mechanics and electricity and magnetism with emphasis on critical thinking and problem-solving skills. Meeting two periods each day enables the student to engage in frequent laboratory activities. Using a variety of techniques,

students collect and analyze data and then develop models to describe fundamental principles. All students take the AP Physics exam at the end of the course.

*Prerequisite or corequisite: Calculus (Year)*

# Visual Arts

Student-artists learn how to communicate visually by making effective use of elements and principles of aesthetic design. Introductory courses emphasize art-making skills, materials, and processes. Advanced visual arts courses provide opportunities to explore and develop skills and concepts using various techniques in both conventional and non-traditional media.

Visual arts teachers design assignments that build confidence and encourage students to relate to their own personal and cultural experiences. To promote creativity, originality, and problem-solving skills, teachers expect visual arts students to consider all possible solutions to challenging assignments.

Successful visual arts students explore cultural differences in art and celebrate multiple perspectives. This in turn enhances valuable self-assessment skills and allows for constructive commentary during class critiques. Art historical references infused throughout the curriculum teach a life-long appreciation of the varied meanings and purposes of art and artists.

## Art I

Students learn basic visual arts vocabulary and art appreciation while developing a foundation in drawing, painting, sculpture, and design. Projects in this course include achieving visual depth through linear perspective and value control. Students critique their own work and work by peers.

*No prerequisite: Fall Term or Spring Term*

## Art II

Art II provides challenges in both two-dimensional and three-dimensional approaches to creative problem-solving. Students become well versed in color theory and in the elements and principles of design and apply their knowledge in solving design problems in a variety of media. Students are exposed to various painting techniques and graphic design procedures in 2D projects. Techniques in 3D projects include additive sculpture and hand-built clay.

*Prerequisite: Art I (Semester) Fall Term or Spring Term*

## Art III

Designed for advanced student-artists, Art III builds on what students learned in earlier art courses. Students explore a variety of 2D and 3D media and also learn about various art movements and artists while working increasingly independently, with more open-ended assignments designed to broaden students' interpretation of concepts.

*Prerequisite: Art II Fall Term or Spring Term*

## Studio Art

Studio Art is for highly motivated art students who are ready to work independently. The course includes practice in the use of various media, the acquisition of techniques, the practice of art criticism and analysis, and the development of an individual, exploratory approach to art. This course is recommended, but not required, for students wishing to take AP Art and Design

*Prerequisite: Art III and departmental approval. (Semester) Fall Term and/or Spring Term*

## 3D Design

This course focuses on the use of three-dimensional (3-D) elements and principles of art and design in the creation of work that involves space and form. Students will explore a variety of materials, processes, and ideas in projects that may include figurative or non-figurative sculpture, assemblage, ceramics, and installation pieces. Each student's sense of space and spatial relationships will be enriched.

*Prerequisite: Art I (Semester) Spring Term*

## AP Art History

Beginning with the study of Paleolithic cave paintings and concluding with contemporary works, this course makes the serious art student aware of historical styles, movements, and individual artists. This course requires the student to take the AP exam in May.

*Prerequisite: Art I and department approval (Year) (1 Global Studies credit)*

## AP Art and Design

AP Art and Design is for highly motivated art students who work independently while developing a portfolio for submission to the AP program. The course includes practice in the use of various media, the acquisition of techniques, the practice of art criticism and analysis, and the development of an individual, exploratory approach to art. This course requires a student to submit a portfolio for the AP exam in May.

*Prerequisite: Art III and departmental approval (Year)*

## Photography I

Photography I provides an opportunity to learn both traditional black-and-white film photography as well as digital manipulation of images on the computer. Students learn basic darkroom processes to produce prints from black-and-white film negatives, and also learn basic color correction, cropping and image manipulation using Adobe Photoshop. Students must have access to a 35mm SLR (single-lens reflex) film camera, and also provide their own photography paper.

*Prerequisite: Art I (Semester) Fall Term or Spring Term.*

## **Photography II**

This course continues to develop both technical and artistic skills in photography, building upon concepts learned in Photography I. Students explore additional darkroom and digital processes to solve assignments and end the semester by creating independent final projects.

*Prerequisites: Art I, Photography I (Semester) Fall Term or Spring Term*

## **Understanding Art: A Global View**

Through this course, students will examine various forms of fine art—including but not limited to painting, drawing, printmaking, sculpture, installation, architecture, new media, and mixed media—across cultures with a focus on the Postmodern and Global Contemporary periods. Emphasis will be placed on visual literacy, as students will learn how to expertly look at and break down a work of art, as well as how artists communicate in a contemporary world, including what choices they make to create meaning and elicit specific viewer responses. Course materials include a variety of readings, films, and field trips.

*Prerequisite: Art I (Semester) Fall Term or Spring Term (0.5 Global Studies credit)*

## **Yearbook**

This course exposes each staff member to all aspects of publications, including organization, layout, theme development, photography, writing copy, advertising, and financing. Students use Adobe InDesign to produce *Liberty*, the school yearbook that comes out each spring.

*Prerequisite: Art I and department approval. (Year).*

# World Language

The World Language Department is committed to teaching according to the ACTFL (American Council on the Teaching of Foreign Languages) Proficiency Scale within the modes of communication (Interpersonal Speaking, Presentational Speaking, Presentational Writing, Interpretive Listening, and Interpretive Reading).

Students will learn to engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions. They will learn to understand and interpret written and spoken language on a variety of topics, and they will work to be able to present information, concepts, and ideas to an audience of listeners or readers on a variety of topics. Culture is integrated on a daily basis into language study. The teaching of language and culture goes hand in hand and one informs the other. Students will learn language structures in context and use them to convey meaning. The courses address language structures inasmuch as they serve the communicative task and not as the end goal unto themselves. The core program includes Years 1-6. As a requirement for graduation, students must complete two sequential years of one language in the Upper School.

## Seal of Biliteracy

The Seal of Biliteracy serves to formally certify attainment of biliteracy for students. It is a statement of accomplishment that helps to signal a student's linguistic and cultural readiness not only for career and college but also for engagement as a global citizen. The Seal of Biliteracy is already awarded by schools located in the 38 US states that had approved Seal of Biliteracy legislation. Students who have completed Year 6, 7, or AP in their Junior or Senior year are eligible to apply. In order to earn a Seal of Biliteracy, French, German and Spanish students will participate in an external assessment and must demonstrate that they have attained Intermediate High proficiency in reading, writing, listening, and speaking or a 4 or 5 on the AP exam. Mandarin Chinese students will also take an external assessment and must demonstrate Intermediate Mid proficiency or a 3 or above on the AP exam.

*Please Note:\*=Proficiency descriptors taken from the American Council on the Teaching of Foreign Languages ([www.ACTFL.org](http://www.ACTFL.org)).*

## Year 1 Courses in French, German, and Spanish:

These courses are for beginning language students working towards the achievement of benchmarks for the Novice High\* proficiency level - i.e. expressing themselves in simple conversations and presentations on familiar topics using highly practiced, memorized words and phrases. Students are able to understand speech dealing with areas of practical need such as highly standardized messages, phrases, and instructions surrounding familiar topics such as "Who am I?," "Let's go shopping!," "What do you like to do?," "My family".

*No prerequisite (Year)*

## **Year 2 Courses in French, German, and Spanish:**

Students in Year 2 will build upon the foundation set in Year 1 as students work toward the benchmarks of the Intermediate Low proficiency level. Further practice initiating, sustaining, and bringing to a close conversation revolving around familiar situations (themselves, family, friends, school) will be the focus. At this level, students are encouraged to speak as much as possible and to try adding something more (another fact, thought, or a question) to keep the conversation going. Communicative tasks will require students to create with the language in straightforward social situations, restricted to the concrete exchanges and predictable topics necessary for survival in the target-language culture. Themes include: “Going Out,” “Traveling,” “Vacation,” “Activities,” “My Routine,” and “Health.”

*Prerequisite: Successful completion of Year 1, with a “B-” (80) or better. For French and Spanish: Successful completion of the Lower School World Language Program and fifth-grade world language teacher approval. (Year)*

## **Year 3 Courses in French, German, and Spanish:**

These courses build upon the foundation set in Year 2 as students begin to work towards the achievement of benchmarks for the Intermediate Mid 1 proficiency level, i.e. being able to handle successfully a limited number of uncomplicated communicative tasks and creating with the language using compound sentences. Students will be required to ask questions in order to sustain a conversation and practice adding new information in order to achieve completion and clarity.

*Prerequisite: Successful completion of Year 2, with a “B-” (80) or better. (Year)*

## **Year 4 Courses in French, German, and Spanish:**

These courses build upon the foundation set in Year 3 as students work towards the achievement of benchmarks to move into the Intermediate Mid 2 proficiency level, i.e. proving capable of asking more specific questions to get more detailed information. Intermediate Mid speakers are able to use expanded time frames, be more specific when describing things (quality, quantity, size), and can talk about the steps needed to accomplish what they need.

*Prerequisite: Successful completion of Year 3, with a “B-” (80) or better. (Year)*

## **Year 5 Courses in French, German, and Spanish:**

These courses build upon the foundation set in Year 4 as students continue consolidating achievement to reflect the broad range of abilities for the Intermediate Mid 2 proficiency level. Students will practice telling stories from beginning to end. They will work on describing everything they see in their familiar surroundings (class, neighborhood, home), use expanded time frames, and practice having conversations about topics beyond their immediate environment. Year 5 students will

also practice resolving situations with a complication and expressing themselves in well-connected sentences.

*Prerequisite: Successful completion of Year 4, with a “B-” (80) or better. (Year)*

## **Year 6 Courses in French and Spanish (Advanced):**

These advanced courses strive to promote and reinforce fluency and accuracy in language. Students will work toward the achievement of benchmarks for the Intermediate High proficiency level. These students can keep a conversation going by asking questions, telling stories, describing people, places, and things, using expanded time frames, and reporting events. They can talk about some topics beyond themselves and can resolve problems that they might encounter in their daily lives. Students at this level speak in well-connected sentences and some paragraphs in a way that people who speak the target language can understand them. The course engages students in an exploration of culture in both contemporary and historical contexts. It develops students’ awareness and appreciation of various cultural aspects such as current affairs, values, attitudes, and patterns of social interactions.

*Prerequisite: Successful completion of Year 5 with a “B-” (80) or better. (Year)*

*Option: Successful completion of Year 4 with an “A” (93) or better and department approval.*

## **Year 6 Course in German (Advanced):**

This course will focus on cultural and linguistic enrichment in the German-speaking world, placing emphasis on literary texts, news, culture, and film. Students will implement tools of comprehension and analysis to immerse themselves in more in-depth resources. Opportunities for conversation will be constant, and the level of language will be similar to that of the AP level (Intermediate High to Advanced Low). We will study grammar on an as-needed basis. In the spring semester, we will prepare, rehearse and perform live a Grimm’s fairy tale in the original German, often Hänsel und Gretel or Der Fischer und seine Frau.

*Prerequisite: Successful completion of German 5 with a “B-” (80) or better. (Year)*

## **Spanish 7 Advanced: Conversation and Culture**

Advanced Spanish Conversation is designed for students to develop strong conversational skills, improve their ability for self-expression, expand their active vocabulary, gain a deeper understanding and appreciation of Hispanic language and culture and use their Spanish in a natural context. Students will learn and practice formal and colloquial language, meet native speakers and students from Spanish speaking countries both in class and by means of technology. Students will research topics of interest relevant to their lives in order to be able to discuss and debate them. The proficiency target for the course is Intermediate High.

*Prerequisite: Successful completion of Spanish 6 Adv. with an (80) or better or AP Spanish with an (80) or better. (Year)*

## **French 7 Advanced: Francophone Culture through Movies:**

Are you a film buff, or simply want to further enhance your speaking ability through discussion and conversation? This course will improve your language proficiency, historical, geographical, and cultural awareness through the lens of exciting and rich francophone cinema. Our discussions will center around the specific language, customs, and cultures that are depicted in the Francophone films we watch. As Intermediate High speakers, you will be expected to provide insightful opinions, analyze, predict, and compare and contrast. Although the emphasis will be placed on Interpersonal Speaking skills, all modes of communication will feature in this course. Some of the movies we will study are: Bienvenue Chez les Chtis and Jean de Florette.

*Prerequisite: Successful completion of French 6 Advanced or AP French with a “B-” (80) or better. (Year)*

## **AP French Language**

Students in AP French prepare to deal successfully with the complex skills required on the AP French Language and Culture exam such as writing persuasive essays and timed guided conversations. The course provides them with opportunities for critical thinking, independent work, and cooperative activities. They develop a global perspective capable of fueling an interest in francophone cultures and respect for their products, practices, and perspectives. The curriculum covers the following units: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. All materials used in the course will come from authentic sources. As students exit the course in May, they should feel confident in their abilities to comprehend written texts and oral discourse as well as communicating in writing and speaking (Interpretive, Presentational, and Interpersonal Communication).

*Prerequisite: Successful completion of French 6 Advanced with an 87% or above and department approval or French 7 Advanced with an 80% and above and department approval. (Year).*

## **AP German**

The goal of AP German Language is to prepare students for success on the AP German Language Exam. This course strives to promote fluency and accuracy in language use, and the teacher expects the students to solely use German in the classroom as they engage in daily conversations based on the central themes of the course. The curriculum covers the following units: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. All materials used in the course will come from authentic sources. Some of the activities in which students will engage are: responding to weekly online posts, voice recordings, crafting email responses, writing persuasive essays, reading short stories and

articles, viewing and listening to German-language film and audio, and participating in daily conversations.

*Prerequisite: Successful completion of German 5 with a 87% or German 6 Advanced with a “B+” (87) or better and department approval. (Year)*

## **AP Spanish Language**

The goal of AP Spanish Language at Providence Day School is to prepare students for success on the AP Spanish Language Exam. This course takes a holistic approach to language proficiency and recognizes the complex interrelatedness of comprehension and comprehensibility, vocabulary usage, language control, communication strategies, and cultural awareness. This course also strives to promote fluency and accuracy in language use. The teacher expects the students to solely use Spanish in the classroom as they engage in daily conversations based around the central themes of the course. The curriculum covers the following units: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. All materials used in the course will come from authentic sources. Some of the activities in which students will engage are: responding to weekly online posts, voice recordings, crafting email responses, writing persuasive essays, reading short stories and articles, viewing and listening to Spanish-language film and audio, and participating in daily conversations.

*Prerequisite: Successful completion of Spanish 6 Advanced with an 87% or above and department approval or Spanish 7 Advanced with an 80% or above and department approval. (Year)*

## **Mandarin Chinese 1:**

This course is for beginning language students working towards the achievement of the Novice Mid proficiency level benchmarks - i.e. using words, phrases, and simple memorized sentences to practice and improve upon comprehension and communicative skills. Themes include: “Greetings,” “Family,” “Dates and Time,” “Hobbies,” “Visiting Friends,” and “Weather.”

*No prerequisite. (Year)*

## **Mandarin Chinese 2:**

Students in Year 2 will build upon the foundation set in Year 1 and work toward the benchmarks of the Novice High proficiency level. The focus will be placed on keeping a conversation going by asking follow-up questions on the same topic and working to understand and talk around words that students may not know. Students are able to understand speech dealing with areas of practical needs in highly standardized messages, phrases, or instructions on familiar topics such as “Making Appointments,” “Studying Chinese,” “School Life,” “Shopping,” and “Transportation.”

*Prerequisite: Successful completion of Year 1, with a “B-” (80) or better. Successful completion of the Lower School Mandarin Chinese and fifth-grade world language teacher approval. (Year)*

## **Mandarin Chinese 3:**

Students in Year 3 will build upon the foundation set in Year 2 as students work toward the benchmarks of the Intermediate Low proficiency level. Further practice initiating, sustaining, and closing conversations revolving around familiar situations (themselves, family, friends, school) will be the focus. At this level, students are encouraged to speak as much as possible and to try adding more information (another fact, thought, or a question) to keep the conversation going.

Communicative tasks will require students to create with the language in straightforward social situations, restricted to concrete exchanges and predictable topics necessary for survival in the target-language culture. Themes include: "Dining," "Asking Directions," "Birthday Party," "Seeing a Doctor", and "Hanging Out".

*Prerequisite: Successful completion of Year 2, with a "B-" (80) or better. (Year)*

## **Mandarin Chinese 4:**

This course builds upon the foundation set in Year 3 as students begin to work towards the achievement of benchmarks for the Intermediate Mid 1 proficiency level, i.e. being able to handle successfully a limited number of uncomplicated communicative tasks and creating with the language using compound sentences. Students will be required to ask questions in order to sustain a conversation and practice adding new information in order to achieve completion and clarity. Themes include: "Renting an Apartment," "Sports," "Travel," and "In the Airport."

*Prerequisite: Successful completion of Year 3, with a "B-" (80) or better. (Year)*

## **Mandarin Chinese 5**

This course builds upon the foundation set in Year 4 as students work further to consolidate the achievement of benchmarks for the Intermediate Mid 1 proficiency level.

Students will work toward the ability to successfully handle uncomplicated communicative tasks by creating with the language using compound sentences.

Students will practice to be able to successfully handle a limited number of uncomplicated communicative tasks and create with the language using compound sentences. Students will be required to ask questions in order to sustain a conversation and practice adding new information in order to achieve completion and clarity. Themes include: "Back to School " "In the Dormitory," "In the Restaurant," and "More About Shopping."

*Prerequisite: Successful completion of Year 4, with a "B-" (80) or better. (Year)*

## **Mandarin Chinese 6 (Advanced)**

This course builds upon the foundation set in Year 5 as students work towards consolidating achievement to reflect the broad range of abilities for the Intermediate Mid 2 proficiency level.

Students will practice telling stories from beginning to end. They will work on describing everything they see in their familiar surroundings (class, neighborhood, home) and practice having conversations about topics beyond their immediate environment. Year 6 students will also practice resolving situations with a complication. They are able to express themselves in well-connected sentences. The themes include: “Course Selection,” “Boy/Girl Friend,” “Computer and Internet,” and “Part-time Jobs.”

*Prerequisite: Successful completion of Chinese 5 with a "B-" (80) or better. (Year).*

## **Mandarin Chinese 7 (Advanced):**

This course builds upon the foundation set in Year 6 as students continue consolidating achievement to reflect the broad range of abilities for the Intermediate Mid 2 proficiency level. Students will practice telling stories from beginning to end. They will work on describing everything they see in their familiar surroundings (class, neighborhood, home) and practice having conversations about topics beyond their immediate environment. Year 7 students will practice resolving situations with a complication and expressing themselves in well-connected sentences.

*Prerequisite: Successful completion of Year 6 with a “B-” (80) or better or AP Chinese with a B- (80) or better (Year)*

## **AP Chinese Language and Culture**

Advanced Placement Chinese Language and Culture includes aural/oral skills, reading comprehension, grammar, and composition. This course provides students with varied opportunities to further develop their proficiencies across the communicative modes (speaking, listening, reading, and writing skills) and the five goal areas (communication, cultures, connections, comparisons, and communities). Students explore both contemporary and historical aspects of Chinese culture by reading Chinese materials. Throughout the course, assessments are frequent, varied, and explicitly linked to content and skills that comprise the learning goals of each unit of study. Students apply their growing knowledge of Chinese culture to communicative tasks in real-life contexts and develop abilities to write and speak in a variety of discourse styles, using both keyboarding and handwriting skills. Students also gain the necessary knowledge of Chinese vocabulary, idiomatic expressions, and grammatical structures. The students develop an awareness of China’s role in issues of global importance in the areas of energy and environment, economics, and politics.

*AP Prerequisite: Successful completion of Mandarin Chinese 6 with a “B+” (87) or better and department approval or Chinese 7 with 80% or better and department approval. (Year)*

## **Latin 1**

Latin 1 is a year-long course that provides an introduction to the Latin language using various methodologies. Through stories set in ancient Pompeii, students increase their vocabulary, develop their reading comprehension skills, learn basic Latin syntax, and explore the many cultural aspects of Roman life.

*No prerequisite (Year)*

## **Latin 2**

In Latin 2, students travel from one end of the Roman Empire to the other by reading Latin stories set in the unruly province of Britannia to the cultured world of Egyptian Alexandria. In addition to strengthening their Latin vocabulary base, students increase their knowledge of the language through the intentional study of grammar concepts and through interpreting stories of increasing complexity.

*Prerequisite: Successful completion of Latin 1, with a “B-” (80) or better. (Year)*

## **Latin 3**

Latin 3 includes a review of previously learned grammar and vocabulary and introduces new verbal elements such as participles, infinitives, deponent verbs, and several uses of the subjunctive mood. Increased reading proficiency is the primary emphasis of this course. The reading selections and culture studies in this course explore military and civilian life during the first century, A.D.

*Prerequisite: Successful completion of Latin 2, with a “B-” (80) or better. (Year)*

## **Latin 4**

Latin 4 introduces more advanced grammatical concepts, including irregular verbs, gerunds, indirect statements, indefinite pronouns, and additional uses of the subjunctive mood, but it is, primarily, a literature course exploring the works of various prose authors, including Livy and Pliny, as well as providing an introduction to Latin poetry.

*Prerequisite: Successful completion of Latin 3, with a “B-” (80) or better. (Year)*

## **Latin 5 (Advanced)**

Latin 5 (Advanced) is a literature course that includes both prose and poetry. The prose portion of the course includes selections from Caesar and from Medieval Latin. Selections from Catullus, Ovid, and Vergil represent both lyric and epic poetry. Students earn advanced credit for this course.

*Prerequisite: Successful completion of Latin 4, with a “B-” (80) or better. (Year)*

## **Latin 6 (Advanced)**

Latin 6 (Advanced) is a literature course that explores two new Latin genres. Cicero’s orations against Catiline introduce students to Roman oratory. Plautus’ *Menaechmi* affords students a glimpse of Roman comedy. A concentrated unit of Latin composition enables students to further refine their understanding of the language. Students earn advanced credit for this course.

*Prerequisite: Successful completion of Latin 5, with a “B-” (80) or better. (Year)*

## AP Latin

This course presents students with the material and skills required for success on the AP Latin Exam. The syllabus includes selections from Vergil's Aeneid and from Caesar's De bello Gallico. Students learn to analyze text, recognize literary devices, and cite underlying themes. Students also review the history and political climate of the first century, B.C. in order to gain a better understanding of these works.

*Prerequisite: Successful completion of Advanced Latin 5, with a "B+" (87) or better and department approval. (Year)*

# The Art and Science of Teaching

This course is designed to provide students with the opportunity to explore the profession of teaching. Topics covered will include child development, the psychology of learning, instructional practices, classroom management, history of Education, and more. The course is a project-based experience requiring students to actively engage in projects in between the weekly class meetings. Students will be required to do interactive read-alouds, independent studies, design lesson plans, work with students, maintain a blog, and complete a classroom experience.

This course is an elective that will earn you .5 credit. The course meets once a week during Upper School lunch.

*Prerequisites - All rising juniors and seniors interested in participating in this course will need to complete an interview process with the instructors.*

# Upper School Administration & Staff

## **Mary Jo Adams**

World Language  
World Language Department Chair  
B.A., Marquette University  
Appointed: 2010

## **Tosha Arriola**

History  
Assistant Upper School Head  
B.A., SUNY Cortland  
M.Ed., Queens University of Charlotte  
M.S.O.D., Queens University of Charlotte  
Appointed: 2018

## **Lisa Baldini**

World Language  
B.A., Florida State University  
MA., University Arizona  
Appointed: 2019

## **Jay Barron**

World Language  
B.A., Davidson College  
M.Ed., University of North Carolina at Greensboro  
Appointed: 2003

## **Marc Bastos**

Physical Education and Health  
B.F.A., The Los Angeles American Musical Dramatic Academy  
Appointed: 2016

## **Claire Bell**

School Counselor  
B.A., Southern Methodist University  
M.A., University of Memphis  
Appointed: 2018

## **Jordan Benoit**

English

B.A., Florida State University

M.A., University of Colorado

Appointed: 2012

## **Jamaal Birch**

Physical Education and Health

B.S., MacMurray College

Appointed: 2020

## **James Bledsoe**

Science

Science Department Chair

B.S., Washington and Lee University

M.A., University of Alabama at Birmingham

Appointed: 2012

## **Jennifer Bratyanski**

History

B.A., Queens University

M.A., University of Alabama

Ph.D., University of North Carolina at Greensboro

Appointed: 2013

## **Jennifer Bray**

History

Global Online Academy Instructor

B.A., Clemson University

M.A., Furman University

Appointed: 2013

## **Lucie Bridgland**

World Language

B.A., Universite Paris Quest

P.G.C.E., Goldsmiths College (UK)

M. Ed., University of Kings College (UK)

Appointed: 2012

## **Paul Burnam**

Physical Education and Health  
B.A., Morningside College  
Appointed: 2004

## **Zac Bygum**

History  
B.A., Dartmouth College  
Appointed: 2020

## **Gordon Bynum**

History  
Upper School Dean of Students  
Assistant Upper School Head  
B.A., University of North Carolina at Chapel Hill  
Appointed: 2000

## **Joshua Cannon**

Science  
B.S., University of North Carolina at Charlotte  
Appointed: 2007

## **Tom Caruso**

Physical Education and Health  
B.S.E., University of Arkansas  
Appointed: 2010

## **Annie Castro**

Mathematics  
Math Department Chair  
B.S., Florida International University  
M.S., Nova Southeastern University  
Appointed: 2008

## **Sara Chen**

World Language  
B.A., Southwest University of Political Science & Law  
Appointed: 2015

## **Laura Clark**

Associate Director of College Guidance

B.A., Miami of Ohio University

M.A., University of Pittsburgh

Appointed: 1997

## **Mary Elizabeth Coley**

English

B.A., Davidson College

M.Ed., University of Virginia

Appointed: 2000

## **Nicole Collins**

Upper School Librarian

Head Librarian

B.S., University of Michigan

M.I.S. University of Michigan

Appointed: 2010

## **John Compton**

History

B.A., Wake Forest University

M. Ed., Wake Forest University

Appointed: 2009

## **Gisela Cordero-Cinko**

World Language

B.A., Universidad de Puerto Rico, Recinto de Río Piedras

M.A., New York University

M.A.T., Rutgers University

Appointed: 2020

## **Glyn Cowlshaw**

Head of School

B. Ed., University of Reading (UK)

M. Ed., University of Leeds (UK)

Ed. S., The Citadel

Ph.D., South Carolina State University

Appointed: 2011

## **Clint Crumley**

English

English Department Chair

B.A., University of North Carolina at Chapel Hill

M.A., Florida State University

Ph.D., University of Kansas

Appointed: 1999

## **Katherine Currier**

English

B.A., Wagner College

Appointed: 2016

## **Antico Dalton**

Physical Education and Health

B.S., University of Hampton

B.S., University of Phoenix

Appointed: 2020

## **Richard Dewey**

Visual Arts

Visual Arts Department Chair

B.A., Allegheny College

M.A., University of Pittsburgh

M.Ed., Framingham State College

Appointed: 2005

## **Edward Dickson, Jr.**

History

History Department Chair

B.A., Princeton University

M.A., University of California at Santa Barbara

Appointed: 1991

## **Joanna Du**

World Language

B.A. Hebei Normal University (China)

M.A. from Sichuan University (China)

Appointed: 2015

## **Gwladys DuPont**

World Language

B.A., Université Francois Rabelais

M.A., Université La Sorbonne Nouvelle

M.A., Greensboro College

## **James Edge**

History

B.A., University of Georgia

M.A., University of Georgia

Ph.D., University of South Carolina

Appointed: 2020

## **Jordan Ellis**

Performing Arts

B.A. Musical Theater, Catawba College

Appointed: 2014

## **John Erb**

Athletic Trainer Health

B.S., West Chester University

M.S., Marshall University

Appointed: 1991

## **William Finneyfrock**

Physical Education and Health

B.S., Clemson University

Appointed: 1990

## **Noela Frost**

World Language

B.A., St. Catherine's School, Uruguay

Appointed: 2019

## **Roy Garrison**

History

B.A., University of North Carolina at Chapel Hill

M.A., University of North Carolina at Charlotte Appointed: 1983

## **Andrea Gowin**

History

B.S., James Madison University

M.A., James Madison University

Appointed: 2013

## **Joe Grabenstetter**

History

B.A., University of Notre Dame

Appointed: 2006

## **Jennifer Haney**

Science

B.S. Georgia Institute of Technology

M.Ed. Georgia State University

Appointed: 2015

## **Eric Hedinger**

Upper School Head

B.S., Frostburg State University

M.Ed., Winthrop University

Appointed: 1996

## **Michael Hough**

Performing Arts

B.M.E., Winthrop University

M.M., Winthrop University

D.M.A. University of South Carolina

Appointed: 2011

## **Sabrina Huang**

World Language

B.A. in Law, National Chung Hsing University in Taipei, Taiwan

Appointed: 2011

## **Gina Hubbard**

Associate Director of College Guidance

B.A., Davidson College

Appointed: 2019

## **Jack Hudson**

English

B.A., University of Georgia

M.A., University of Georgia

Appointed: 2010

## **Courtney Inscoe**

Mathematics

B.A., University of North Carolina at Chapel Hill

Appointed: 2013

## **Tyrone Jean**

Director of Equity, Inclusion, & Belonging

B.A. from the University of Virginia

M.A. Ed from Virginia Tech.

Appointed: 2021

## **Terry Jenkins**

Mathematics

B.A., Florida Southern College

M.Ed., Florida Southern College

Appointed: 2018

## **Todd Johnson**

Computer Science

B.S., University of Wisconsin

M.A., University of Phoenix

M.A., Northeastern University

Appointed: 2018

## **Amy Jordan**

Science

B.S., Pennsylvania State University

M.S., University of Kentucky

Ph.D., Harvard University

Appointed: 2013

## **Catherine Jordan**

Mathematics

B.A. Queens University

M.A. University of North Carolina at Charlotte

Appointed: 2015

## **Carlynn Keilty**

Mathematics

B.A., Colorado College

M.A., University of California, Santa Barbara

Appointed: 2016

## **Marissa Kohn**

School Counselor

B.A., College of the Holy Cross

M.Ed., Fordham University

Appointed: 2018

## **Ian Kutner**

English

B.A., Cornell University

Appointed: 2000

## **Carol Lawrence**

Computer Science

B.S., New York Institute of Technology

M.S., New York Institute of Technology

M.B.A., University of Phoenix

Appointed: 2007

## **Thamar Lebron**

History

B.A., Haverford College

M.A. University of Puerto Rico

Appointed: 2021

## **Georgette LePage**

World Language

B.S., Plattsburgh State University

M.S., Syracuse University

Appointed: 1998

## **Mike Lindquist**

History

B.A., University of North Carolina Charlotte

M.A., University of North Carolina Charlotte

Appointed: 2014

## **Geoffrey Lucia**

Mathematics

B.A., Niagara University

M.S., University of Chicago

Appointed: 1985

## **Brian Ludwig**

Science

B.S., Kent State University

M.S., Nova Southeastern University

Appointed: 2008

## **Christine Marshall**

English

BA, Bryn Mawr College

MA, University of Missouri

Ph.D., University of Utah

Appointed: 2016

## **Roberta McKaig**

World Language

A.B., Duke University

Appointed: 1975

## **Daniel Mehigan**

Mathematics

B.J., University of Missouri

M.Ed., DePaul University

Appointed: 2012

## **Stephen Melton**

World Language

B.A., Virginia Tech

M.A., University of Texas

Appointed: 2010

## **Shelley Mikszan**

Learning Specialist

B.A., University of North Carolina at Charlotte

M.A.Ed., Western Carolina University

Appointed: 2012

## **Herman Nicholson**

Visual Arts

B.F.A., Savannah College of Art & Design

M.F.A., Columbia College Chicago

Appointed: 2021

## **Kristie Oglesby**

Physical Education and Health

Physical Education and Health Department Chair

B.S., Charleston Southern University

M.A., Seattle Pacific University

Appointed: 2006

## **James Reeder**

Computing & Innovation

Computing & Innovation Department Chair

Global Online Academy Instructor

B.S., Oregon State University

B.S., Southern Oregon University

M.A., John Carroll University

Appointed: 2008

## **Rebecca Roemer**

Computer Science

B.S., Oswego State University

M.A., George Mason University

Appointed: 2018

## **Emily Rusniak**

School Nurse

RN, BSN West Virginia University

Appointed: 2020

## **Sydney Schaeffer**

Visual Arts

BA Visual Arts

University of North Carolina at Charlotte

Appointed: 2020

## **Matt Scully**

Director of Digital Integration and Innovation  
B.A., University of Arizona  
M.A., Columbia University, Teachers College  
Appointed: 1998

## **Michelle Sebastian**

Science  
B.S., Central Michigan University  
M.Ed., University of North Carolina at Charlotte  
Appointed: 2003

## **Marcus Smith**

English  
B.A. Wesleyan University  
M.T.S Harvard Divinity School  
Appointed: 2018

## **Matthew Spence**

English  
B.A., Hobart College  
M.A., University of Richmond  
Appointed: 1996

## **Josh Springer**

Physical Education and Health  
B.S., University of Wisconsin-Oshkosh  
M.S., Ohio University  
Appointed: 2008

## **Lucy Stickler**

Science Department  
B.A., Washington University in St. Louis  
Appointed: 2015

## **Lisa Sturgis**

Registrar  
B.S. Wingate University  
M.B.A. University of North Carolina at Charlotte

Appointed: 2013

## **Leland Taylor**

Mathematics

B.S., University of Virginia

Appointed: 1999

## **Bailey Teague**

Mathematics

B.S. Mathematics Education, Auburn University

Appointed: 2021

## **Olivia Tilson**

Performing Arts

Performing Arts Department Chair

B.M., Converse College

M.M., Southern Seminary

Appointed: 2004

## **Stephanie Vanderford**

Mathematics

History

B.S., Davidson College

Ph.D., University of Georgia

Appointed: 2006

## **Ryan Welsh**

English

B.A., Duke University

M.A., University of Chicago

Ph. D., University of North Carolina at Charlotte

Appointed: 2008

## **Andrew Werner**

World Language

B.A., Lynchburg College

B.M., James Madison University

M.A., Miami of Ohio University

Appointed: 1998

## **John T. Whelan**

Director of College Guidance

B.A., Amherst College

M.A., Middlebury College

Appointed: 2007

## **Patricia Whelan**

English

B.A., Davidson College

M.A., Florida State University

Appointed: 2010

## **Russell White**

Science

B.S., University of North Carolina at Charlotte

M.S., University of North Carolina at Chapel Hill

M.A.T., Univ. of North Carolina at Chapel Hill

Appointed: 1999

## **Jessica Williams**

History

Global Education

B.A., Dickinson College

M.L.S., Rollins College

Appointed: 2018

## **Anne Worgan**

School Nurse

R.N., Central Piedmont Community College

Appointed: 1999

## **Emily Young**

History

Learning Specialist

B.A. Appalachian State University

Appointed: 2015

## **Kinga Zay**

World Language

M.A., Eötvös Loránd University  
Appointed: 2018