# Stanford $\mid$ Online High School 



## COURSE CATALOG 2016-2017

## STANFORD ONLINE HIGH SCHOOL COURSE CATALOG 2016-2017

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## OUR MISSION

Stanford University Online High School (Stanford OHS) creates a worldwide learning community of diverse, intellectually passionate students and teachers. Through vibrant seminars, the rigorous curriculum challenges students to reason analytically, think creatively, and argue critically. Beyond the classroom, collaborative extra-curricular activities cultivate lasting relationships among students and teachers. The School's supportive environment fosters independence, strength of character, and a lifelong pursuit of knowledge.

## A UNIQUE SCHOOL

- While online, Stanford OHS is first and foremost a school that draws strength from its students and teachers.
- It is a school for gifted students, for intellectual risk takers, and for those who are engaged in significant pursuits beyond the classroom.
- It is a school for instructors unparalleled in their expertise who have passion for teaching students in this environment.
- It is a school located within Stanford University, and thus at the forefront of learning.
- It is this combination of students, instructors, and place that makes Stanford OHS a school unlike any other.


## ABOUT STANFORD OHS

Stanford OHS is an independent school for gifted students in grades 7-12. The school was founded in 2006 as a three-year high school, and has since expanded to include grades 7-9. Stanford OHS has been accredited by the Western Association of Schools and Colleges since 2006, received provisional membership in the California Association of Independent Schools in 2015, and has been approved as an online course provider by the University of California since 2008.

The mission of Stanford OHS is to provide a stimulating and challenging education that equips and inspires talented students to academic and professional success. The school's approach to fulfilling this mission consists in an emphasis on rigorous and advanced academic offerings, the development of skills in written and oral communication, acquisition of a mastery of the principles of critical thinking and argumentation, and the promotion of intellectual maturity and responsibility. Beginning at the earliest grades, this mission informs the academic program that Stanford OHS students pursue, in the content of its classes, the methods and media of instruction, and the composition of the required courses of study. Students are guided through their studies by instructors who are chosen for their expertise and accomplishment in their disciplines and their experience and dedication to teaching highly talented students at the high school and college levels.

The flexibility of the Stanford OHS academic program and enrollment options, which include full-time, part-time, and single course enrollment, can accommodate the varied needs and interests of our students. The online instruction, which combines seminar-style and directed-study courses on a flexible college-style class schedule, both encourages independence, discipline, and strong timemanagement skills and allows our students to pursue their diverse interests and exceptional talents.

The strong community at Stanford OHS supports students in acclimating to an inviting yet academically rigorous environment. Students work closely with instructors, counselors, and each other to achieve their academic and personal goals. Beyond the online classroom, students engage in a rich array of student clubs that build on student interests. An intensive residential summer program at Stanford University presents students with further opportunity to connect with each other and their instructors, while learning about and preparing for college and benefitting from the vast resources of a world-class university.

## THE ACADEMIC PROGRAM

The academic program of the Stanford Online High School is designed to introduce students with a wide range of exceptional academic talents and interests to the advanced work and instruction that will provide the appropriate development of these talents, and will situate graduates for success at the best colleges and universities in the world. In completing the rigorous course of study available at Stanford OHS, students acquire a mastery of content and skills that are articulated by instructors who are experts in their fields and that are further integrated into a distinctive intellectual framework. Students additionally hone an independence and responsibility that allows them to take productive advantage of the college-style learning environment of Stanford OHS.

The Stanford OHS curriculum comprises courses treating advanced and challenging material at every level in the school, culminating in post-AP and university-level courses in a growing spectrum of disciplines, including mathematics, economics, physics, biology, English, and history. In working towards these courses, students gain a preparation that will allow them to begin work in college already at an advanced level. But the content of these courses does not exhaust the unique preparation that Stanford OHS provides. A defining feature of instruction at Stanford OHS is the close interaction that each student has with teachers who have the passion and expertise of dedicated practitioners of a discipline. At the level of course design, this means that Stanford OHS courses are created with an expert-level understanding of what university and professional study in a subject consists in, and also of what it takes to get to that level of proficiency. Stanford OHS courses, therefore, model and practice the professional methods, skills, norms, and intellectual habits of each discipline. In science, students imbibe the central perspectives of hypothesis-formation, experimentation, and analysis; mathematics courses stress proficiency in problem-solving; students of English develop habits of daily writing and intentional use of language to communicate to specific audiences and within particular contexts; language learners work to acquire a functional proficiency that facilitates an appreciation of literature and culture; and in history, students prepare to engage substantively and productively in the historical discourse by learning to assess a variety of primary sources, to evaluate theses presented by scholars, and ultimately to formulate their own.

Individually, each Stanford OHS course offers not only discipline-specific knowledge and methodology, but also more generally applicable skills, such as an understanding of evidence, strategies of argumentation, criticism, and persuasion, familiarity with the analysis of data, and careful, critical reasoning. The discrete study of these foundational skills across the curriculum is further unified in the four-year Core sequence, whose function it is to provide a common intellectual experience and identity among Stanford OHS students consisting in systematic exposure to and practice of structures of reasoning in a spectrum of disciplines. Students who complete the Core sequence as part of their full course of study at Stanford OHS will possess the precision of writing, reasoning, and argument that is a hallmark accomplishment of the Stanford OHS educational experience.

Critical to the fulfillment of these goals is the forum in which they are pursued. Instruction at Stanford OHS is structured around the live discussion seminars. Students' independent work, whether it consists in viewing recorded lectures, reading texts, solving problem sets and writing papers, or working through computerized exercises, sets the stage for active, constructive engagement with the material and dynamic interaction between peers and instructors in the virtual classroom setting. Participation in these sessions provides the full measure of what the Stanford OHS academic program has to offer and the abilities it fosters in its students. In discussion seminar, students participate in fast-moving conversations, stake out, defend, and critique positions extemporaneously, and participate in the instructor's modeling of inquiry in a discipline. These skills serve Stanford OHS students well in college and professional settings.

Equipped with the analytical tools and expertise engendered by a robust engagement with the curriculum, Stanford OHS graduates are not simply well qualified to begin their college studies. Rather, they are ready to engage immediately and at an advanced level in the opportunities available at the university level. Their preparation, in content and in academic and intellectual habits and practices is the appreciable mark of the Stanford OHS academic program.

## MIDDLE SCHOOL PROGRAM

The Stanford OHS middle-school program is a comprehensive curriculum that extends the core values and components of the Stanford Online High School academic program to the middle-school grades. Courses at the middle-school level are specially designed to lay the intellectual foundation for advanced coursework by cultivating the critical reasoning, analytical, and communication skills necessary for academic achievement. Students enrolled in the middle school, therefore, hone the skills and habits assumed at the highschool level in the context of challenging material in each subject, while also pursuing high-school courses in areas of special talent or preparation.

The Stanford OHS middle-school curriculum as a whole, and the individual courses themselves, are alike tailored to the backgrounds and appropriate objectives of students at this level. Middle-school science courses apply an inquiry-based approach that engenders familiarity with scientific methodology while introducing fundamental concepts in a manner accessible to students with broad mathematical preparation. A mastery of concepts such as energy and matter in these contexts is foundational to the more expansive and formal treatments in the respective scientific disciplines at the high-school and college levels. Similarly, middle-school courses in Core and Latin provide students the opportunity to begin study in those disciplines, preparing for the high-school sequences in a middle-school setting. In the humanities, a pair of English and history courses furnishes students with a broad cultural and conceptual setting for future study, but also introduces disciplinary methods and norms that students will deploy in high-school work. Each of these courses, finally, approaches its subject with assessments, exercises, and pedagogy that are calibrated to the strengths and needs of middle-school students. In the course of their studies, middle-school students from a spectrum of academic backgrounds make significant strides in scholarship that smooth the transition to the challenging high-school curriculum.

## MIDDLE SCHOOL COURSES

| CORE | ENGLISH | HISTORY | LANGUAGE | MATH |
| :--- | :--- | :--- | :--- | :--- |
|  | Fundamentals of <br> Expository Writing | Introduction to U.S. <br> History | Latin 1A | Honors Prealgebra |
| Human Nature and <br> Society | Fundamentals of <br> Literary Analysis | Empires and World <br> Civilizations to 1800 | Latin 1B | Honors Beginning <br> Algebra* |
| Foundations of Science: <br> Energy and Matter |  |  |  |  |

*Honors Beginning Algebra (OM010) is taught as a high-school course. Placement tests exist for students looking to take high-school-level courses. However, the level of rigor offered in the middle-school curriculum, and the difficulty of the high-school program, make such arrangements uncommon in most disciplines. Interested students must consult with their academic advisors to determine whether high-school work might be appropriate before taking a placement test.

## CORE

The Core Sequence is a unique and central component of the Stanford OHS academic program that embodies the tenets of the school's mission. In Core courses, the subject matters of human nature, science, history of science, political theory, and philosophy provide a forum for developing a range of analytical and philosophical skills that can be applied broadly in both academic and public reasoning. The common intellectual framework that the Core provides is characterized by an ability to ask conceptual and foundational questions in a particular discipline, a preparation to think critically about work and discourse in these disciplines, and a mastery of the principles and practice of rigorous and logically informed reasoning.

The intellectual framework of the Core extends beyond the content and norms of thinking and writing in the individual disciplines of the courses. In Core courses, students study the standards and structures of reasoning common to work in the sciences and humanities alike. Students also develop writing and presentation skills, through extensive written assignments and critical discussion on a variety of topics. The expertise, skills, and habits of mind cultivated in the Core program are therefore the foundation that both unifies the Stanford OHS curriculum and prepares students for subsequent achievement and citizenship.

The individual Core courses realize these goals in their themes, methods, and questions. In Human Nature and Society, middleschool students investigate what it means to be human by exploring how thinkers and artists have defined and interpreted human nature and human society. This course prepares students for high-school level Core and humanities courses by developing critical thinking, writing, and reading skills. In Methodology of Science - Biology (MSB), students examine the nature of strong statistical and biological evidence and also develop the technical skills to assess and employ such evidence. In History and Philosophy of Science, students study various scientific disciplines and their historical development, thus building on the knowledge and skills acquired in MSB. Students confront the circumstances under which scientific theory formation occurs, and learn to analyze the argumentative structure which grounds theories in evidence. The analysis of various theoretical views of political concepts and institutions that students undertake in Democracy, Freedom, and the Rule of Law (DFRL) in turn establishes a foundation for critically assessing rhetoric and equivocal use of concepts in political discourse. DFRL also shifts philosophical focus to the normative aspect of intellectual investigation, from the previous two courses that deal with descriptive theories in science. Critical Reading and Argumentation (CRA) explicitly discusses analytical techniques highlighted in each of the courses, including reconstruction of an author's position, identification of neglected possibilities and problematic assumptions and inferences, and effective use of thought experiments and counterexamples. The course further develops the philosophical perspectives highlighted in the other core courses.


## COURSE DESCRIPTIONS

## Middle School

Human Nature and Society (JHNS2) Year course

This yearlong course examines what it means to be human and to live in society with others. Drawing on short philosophical, scientific, and literary writings, students explore questions about what the innate features of human beings are, what kinds of motives and behaviors are characteristic of humans, what kinds of methods thinkers use in theorizing about human nature, and how societal and educational institutions should be shaped by our theories of human nature. The course prepares students for the high-school Core sequence, as well as for further work in the humanities, by strengthening and broadening their skills in critical reading, reasoning, and writing. Prerequisite: Fundamentals of Expository Writing (JEOO1) or placement

## High School

## Methodology of Science - Biology (OMSB9) Year course, 10 units

This year-long course introduces students to the methods and reasoning used throughout science. Using biological examples, students learn how evidence can be obtained for scientific claims from raw data based on statistical methods. Students are exposed to various statistical concepts and techniques to interpret data and make inferences from the interpretations. These techniques are applied to the study of life, as students explore how organisms interact with each other and their environment, and the properties and processes of cells and molecules.

## History and Philosophy of Science (OHSCO) Year course, 10 units

This year-long course examines the context in which science flourishes and the nature, benefits, and limitations of doing science by exploring its significant ideas, observations, and experiments. Using a historical case study method, students examine the interplay between observations of the physical world, attempts to explain those observations, and the methods used to test the resulting explanations. As part of the methodology of the inquiry, students learn and practice the skills of philosophical analysis, logical argument, and criticism. Topics include Aristotle's physics and biology; ancient astronomies in Hellenistic, Chinese, and Islamic cultures; ancient medical study; the medieval rise of universities and technological innovation; the rise of chemistry; and modern advances including the development of atomism, electromagnetism, evolutionary theory, relativity and quantum theory, and key issues in modern psychology.

Democracy, Freedom, and the Rule of Law (ODFRL) Year course, 10 units
This year-long course examines the foundations of civil society. Drawing on both historical and theoretical materials, the students study changing conceptions of how a state is and should be organized. In particular, we focus on different treatments of the interwoven concepts of democracy, freedom, and the rule of law. As part of their study, students practice the methodological tools of analysis relevant to philosophy and political theory, learn to formulate and evaluate hypotheses about the content of critical concepts, and develop a thorough knowledge of their political traditions and principles. These lessons contribute to the broader aim of the course, which is to prepare students for citizenship in their community by refining their ability to participate constructively in the discourse that draws on these conceptions of the state. While the course is organized around principles of American government, the readings are germane to democratic society generally. Readings include Hobbes, Locke, Rousseau, Montesquieu, Madison, Jefferson, American founding texts, Lincoln, Addams, King, Burke, Tocqueville, Smith, Dewey, Mill, Berlin, Rawls, Nozick, Sandel, Sen, McMillan, Marx, Dicey, and Hayek.

## Critical Reading and Argumentation (OCRA1) Year course, 10 units

In addition to the unique problems and questions that constitute its subject matter, philosophy makes use of a variety of intellectual tools and argumentative strategies that are widely applicable to both academic and informal inquiry. This course helps students develop these resources through a careful analysis of exemplary pieces of philosophical argument and literature. To this end, we explore philosophical thinking about modes of reasoning as well as core philosophical discussions of religious concepts, the nature and limits of knowledge, the nature and content of ethics, and the mind's relation to the world. While the course emphasizes the cultivation of the tools and strategies of reading and argument, the materials encourage reflection on some of the foundational characteristics and assumptions in the disciplines of ethics, religion, and philosophy itself. Readings include Plato, Anselm, Aquinas, Paley, Pascal, Leibniz, Voltaire, Mackie, Rachels, Aristotle, Mill, Kant, O'Neill, Nagel, Camus, Hume, Chisholm, Frankfurt, Descartes, Russell, Kafka, and Nietzsche.

## Advanced Topics in Philosophy

Advanced Topics in Philosophy is a sequence of two semesterlong seminar courses that explore a specific philosophical topic, problem, thinker, or period. Such a focus enables students to engage philosophical questions through classic and secondary literature, detailed discussion of theoretical and practical implications, and strategic development of new positions. Topics for each semester are chosen from across the discipline and draw on the unique expertise of the Core Division staff. Students may take the limited-credit course to focus on readings, discussions, and minor writing assignments, or may add the full 'writing option' to explore the material more deeply in an additional substantial writing project. Prerequisite: Completion of or enrollment in Democracy, Freedom, and the Rule of Law (ODFRL), or consent of instructor

## Advanced Topics in Philosophy I (OPHI25)

Semester Course, 2.5 units, Fall only

## Fall 2016 Topic: Existentialism

In this class we will explore existentialism as a serious philosophical position preoccupied with the question of freedom. We will consider how various existentialist authors articulate their belief that a person is free when her authentic, or true self determines her actions, and examine how unfreedom is understood as alienation, weakness of will, or psychological disharmony.

Some questions we will consider in the course: How can one live a meaningful life? What is meant by authenticity, and what is the relation between authenticity and traditional morality? What is one's relation to the divine? Through this course of study students will refine their capacity for critical analysis of complicated, often difficult, ideas and arguments; develop their argumentative skills, both written and verbal; and wrestle with key philosophical concepts and theories that relate significantly to their capacity to lead worthwhile and meaningful lives. Course materials will include some combination of philosophical works, novels, plays, and films. Authors may include Rousseau, Kierkegaard, Nietzsche, Sartre, Beauvoir, Camus, and Dostoevsky.

## Advanced Topics in Philosophy I: Writing Option (OPHI27) Semester Course, 5 units, Fall only

Students choosing the Writing Option for the course will additionally complete a substantial final research project.

Advanced Topics in Philosophy II (OPHI26) Semester Course, 2.5 units, Not Offered 2016-17

## Advanced Topics in Philosophy II: Writing Option (OPHI28) Semester Course, 5 units, Not Offered 2016-17

Students choosing the Writing Option for the course will additionally complete a substantial final research project.

## ENGLISH

Each Stanford OHS English course is designed to create a cohesive, collaborative community of learners who read to understand writing and write to understand reading. Instructors draw on the full range of literature in order to develop students' attention to the possibilities of language. Through this sequence of courses, students will master ever more challenging literature and develop increasingly complex modes of writing. By the end of the sequence, students can employ language effectively in a wide variety of contexts, with intention, precision, and passion.

By analyzing texts and writing frequently, students learn how ideas are formed through language. Stanford OHS English courses teach students to pay close attention to how a piece of writing creates meaning at the level of the word, the phrase, the sentence, and the paragraph or verse. Because they can understand and articulate how an author uses language to achieve certain effects, students can then apply these same strategies in their own writing.

Students learn to write and speak with precision and control in order to create the effects they wish to achieve. Through formal and informal writing assignments, discussion-based class meetings, and oral presentations, students become adept at expressing their ideas clearly and concisely, and begin to establish their own unique authorial personas. At the same time, they learn to take into consideration audience and genre, so that they are able to write and speak in more than one style and for more than one audience.

Stanford OHS English courses expose students to multiple genres, writing styles, arguments, and methods or theories of analysis. Students learn to synthesize works written in different time periods, for different purposes, and addressed to different audiences, and they master different and sometimes competing theoretical approaches to interpreting language. As they progress through the sequence of courses, students become more and more able to shape and articulate their own ideas about texts, their intrinsic meaning, and their significance to the world at large.

The skills of critical reading and writing that students master in Stanford OHS English courses make them habitual critical thinkers who are mindful of the world around them and the ways in which ideas are generated and communicated by and to them. Students become critical readers not only of texts but also of the world around them.


## COURSE DESCRIPTIONS

## Middle School

## Fundamentals of Expository Writing (JE001) Year course

Fundamentals of Expository Writing is a year-long course that introduces students to the nuts and bolts of critical reading and writing. Through detailed analysis of texts, students decode complex works of literature, and build on their understanding of the mechanics of the sentence to consider more abstract topics such as audience, expectation, and authorial persona. They also master the basic essay form. Prerequisite: placement exam

## Fundamentals of Literary Analysis (JE002) Year course

Fundamentals of Literary Analysis is a year-long course designed to develop and strengthen students' skills in writing, literary interpretation, and critical thinking. A second key goal of this course is to expose students to a variety of major works of literature in different genres. Students will become familiar with the elements of narrative fiction and poetry and gain the tools to analyze literary works productively with attention to form, content, and style. Other concepts covered include figurative language, tone, close reading, prewriting tactics, thesis development, diction and clarity, paragraph unity, argumentative structure, and revision. Prerequisite: Fundamentals of Expository Writing (JE001) or placement exam

## High School

## Literary Analysis and Argumentation (OE009) Year course, 10 units

Literary Analysis and Argumentation deepens students' skills in close textual analysis of literature, in making and supporting meaningful arguments, and in crafting elegant argumentative prose. Students read from a wide range of literary genres and time periods, with an eye to their intersection with a series of broad philosophical topics, and hone their critical writing skills, particularly with regard to thesis development, paragraph unity, and argumentative structure. Throughout, the course emphasizes literary analysis in an interdisciplinary context. Prerequisite: Fundamentals of Literary Analysis (JE002) or placement exam

## Textual Analysis and Argumentation (OE010) Year course, 10 units

Textual Analysis and Argumentation provides students an American literature survey in a global context. Students master close reading for form in thematically related clusters of texts (such as the captivity narrative) and learn to create precise thesis statements based on these readings. Throughout, students pay close attention to how writing constructs authorial identity, and to self-presentation-their own and those of the authors they read-through language both written and spoken. They learn to structure their essays with increasing sophistication and are introduced to, and become competent in, MLA style. Prerequisite: Literary Analysis and Argumentation (OEOO9), recommendation of Fundamentals of Literary Analysis (JE002) instructor, or placement exam

## Modes of Writing and Argumentation (OE011) Year course, 10 units

Modes of Writing and Argumentation builds upon the argumentative structures and generic terminology covered in TAA to introduce students to literary terms and more formalized theoretical approaches to literature, including narrative, genre, intertextuality, and metaphor. Students continue the work of reading texts in conversation and competition with their predecessors and, in longer essays that require more sophisticated argumentative structures to support complex claims, they begin to articulate their own theory of intertextuality in action. Students solidify their mastery of MLA style, and continue to develop oral presentation skills to complement their skill in writing. Prerequisite: Textual Analysis and Argumentation (OEO10) or placement exam

## AP English Language and Composition (OE020) Year course, 10 units

AP English Language and Composition introduces students to rhetorical terms and structures as a means of analyzing authorial intentions and effects. Building upon readings in TAA and MWA, AP ELC provides students with an intensive study of genres of nonfiction, including creative nonfiction and visual rhetoric. Students write many genres of essays and present formal oral arguments, allowing them to experiment with varied authorial personas and to master multiple argumentative structures. By the end of the course, students routinely formulate compelling, unexpected theses, and their essays are executed at the college level. Prerequisite: Modes of Writing and Argumentation (OEO11) or placement exam

## AP English Literature and Composition (OE021) Year course, 10 units

AP English Literature and Composition introduces students to advanced theoretical approaches that build upon the foundations in literary and rhetorical analyses provided by MWA and AP ELC. By the end of the course, students will have put together their own approach to literary history, becoming creators as well as consumers of advanced literary theory. Prerequisite: AP English Language and Composition at Stanford OHS (OE020) or placement exam (Please note that a 4 or 5 on the AP English Language test will not be accepted in lieu of placement exam.)

## Advanced Topics in Literature

Advanced Topics in Literature is a sequence of two semesterlong seminar courses that explore a specific author, genre, critical method, literary movement, or time period in depth through discussion of primary texts and significant engagement with scholarly criticism. Topics are chosen from the breadth of the discipline and build on the unique expertise of the English Division staff. Students gain exposure to texts and critical methodologies rarely taught at the pre-college level, and learn valuable skills in conducting scholarly research. Previous topics have included Imagining Nations, Medieval and Modern, Xtopias, The Idea of History and Literature in Art, the Ode, Chaucer and the Aesthetics of the Unfinished, and Gender and Clothing in Shakespeare's Plays. Prerequisite: successful completion of AP English Language and Composition(OEO20) at Stanford OHS, concurrent enrollment in AP English Literature (OE021), or placement exam

## Advanced Topics in Literature I (OE025) Semester course, 2.5 units, Fall only

Fall 2016 Topic: Fakers, Frauds, and Spies: the Rhetoric of Identity in the Literature of Dishonesty

The relationship between fiction and truth is by its nature a troubled one. Whether any particular story is didactic or not, a core function of literature has always been to teach us to orientate ourselves in the world, whether by learning moral truths via fictive narratives, or by developing habits of mind we need to navigate fictions and turning them outward into the world. Such faculties get a special workout in literature grounded in imposture, where questions of identity are simultaneously informational and ethical-how do we navigate a world of deception, and what does it mean when we can't trust one another? Our course will explore how modern authors in various times, registers, and genres have wrestled with this dilemma. Readings may include: Daniel Defoe, Roxana; Eliza Haywood, "Fantomina"; Oscar Wilde, The Importance of Being Earnest; Joseph Conrad, The Secret Agent; Erin Ambler, A Coffin for Dimitrios; Graham Greene, The Ministry of Fear; Patricia Highsmith, The Talented Mr. Ripley; John Le Carré, Tinker, Tailor, Soldier, Spy; Tom Stoppard, Hapgood; Sarah Caudwell, Thus was Adonis Murdered; Matt Kindt, Super Spy (graphic novel).

## Advanced Topics in Literature I: Writing Option (OE027) Semester course, 5 units, Fall only

Students choosing the Writing Option for the course will additionally complete a significant final critical essay.

## Advanced Topics in Literature II (OE026) Semester course, 2.5 units, Spring only

Spring 2017 Topic: Revolutions in Art, Science, and Society: An Interdisciplinary Approach to Literature and Global Society

This course addresses the dynamic period between 1900-1945, with a particular focus on the British Empire and revolutionary challenges to traditional science, aesthetics and social institutions. The fin-de-siècle (turn of the 19th / 20th century), World War I, and World War II periods will be the historical lenses through which we will investigate the confluence of revolutionary art, science, and societies. "The West" experienced massive epistemological, aesthetic, and social upheaval in the pre-, inter-, and post-war periods; this is especially the case in the formerly dominant British Empire. Reading from modernist literature, philosophy, scientific theories of the "New Physics", post-colonial, gender, and economic theory, students will be asked to consider the questions: why was this a particularly momentous period of change across seemingly unconnected fields of study? What can we glean from the simultaneous and radical eruption of theoretical physics, modernist aesthetics (as a radical shift from the traditional novel), post-colonial revolutions, and social advancements by marginalized groups across the former British Empire (and in the United States)? Why is it that the inter-war years in particular produced a dynamic relationship among the political, scientific, social, and artistic worlds? While the focus will be on literary texts from the Western tradition, especially works from James Joyce, Virginia Woolf, Samuel Beckett, and Jean Rhys, these will be supplemented by painting, music, and cinema. By semester's end, students will have a solid grasp of the history of modernism and social and political change in the West, as well as an introduction to gender and post-colonial theory, all with an eye toward post-modernism in relation to our own increasingly globalized and interconnected societies.

## Advanced Topics in Literature II: Writing Option (OE028)

## Semester course, 5 units, Spring only

Students choosing the Writing Option for the course will additionally complete a significant final critical essay.

## University Level

## Making Moby-Dick (UE030) <br> Semester course, 5 units, Fall only

What is Moby-Dick; Or, The Whale? Is it an adventure story, a revenge story against a monster whale? Is it a novel investigating American identity in race and in national promise and revolution? And what about the tragedy of this tale?
Only one whaleman lives. Does Melville write a tragedy in the vein of Shakespeare? How does this book matter? 'Making

Moby-Dick' takes on a series of critical questions in four crucial settings. The first setting is the New England contexts of American literature in the 1840 s-seen in the writings of Emerson, Hawthorne, and Melville-while the second setting turns to Edgar Allan Poe's and Mary Shelley's model adventure tales, of the sea and of the 'monster.' Our third setting is the novel Moby-Dick itself and our extended reading of the tale. The fourth and final setting lays out the argument that there are actually 'two Moby-Dicks' and that Melville's reading of Shakespeare's tragedies plays an essential role to deciphering the novel's composition. Students gain the critical skills needed to interpret, and to answer, what the novel Moby-Dick is, or does. Prerequisite: Consent of instructor

## Modernist Literature and Photography (UE031)

## Semester course, 5 units, Spring only

This course uses photography and detective fiction to explore how traditional assumptions of genre were challenged and re-written in modernist works. Why did modernists and modernism seek to re-work the cultural idea of genre? How does open genre or cross-genre or anti-genre work seek to demonstrate language and literature in the $20^{\text {th }}$ century? How does such literature look? And what does it do? How does it portray modernity? Interactions and parallels between photography and literature are studied through a survey of the origin of detective fiction, the rise of poetry of the modern city, and the further development of detection and memory in modernist novels. The course introduces a basic history and discourse of photography, which began around the time the first "detective fiction" was invented by Edgar Allan Poe, and explores how photography, a visual genre, was a key prompt for the advent of modernist literary genres. Through an investigation of these, students discover the many ways in which photography and detective literature are linked to the social, historical, and intellectual movements of modernism. To survey the modernist literary genre and how literature becomes "photographic" is to enter into the wide range of visual media and literature we see at the end of the $20^{\text {th }}$ and at the start of our $21^{\text {st }}$ century. Prerequisite: Consent of instructor

## Courses in this section are non-credit bearing and act as supplements to students' overall course load at OHS.

Creative Writing Workshop
6-week workship, Fall 2016 and Spring 2017
These six-week creative writing workshops, led by a professional writer, are an exploration into and study of the craft of writing poetry, fiction, and/or creative nonfiction. In each semester's workshop, students will discuss the fundamentals of creative composition including figurative language, sound, imagery, voice, and style, and complete weekly in-class writing exercises designed to spark creativity and stimulate the mind. They will read poems, personal essays, and short stories by well-known authors, as well as essays on craft to develop skills needed to form their own personalized writing process. With the aid of class discussions, exercises, and in-class workshops,
students will advance their skills in the fundamental craft of creative writing. Each 6-week session takes place mid-semester, beginning several weeks into the semester and ending several weeks before final exams, to make it easier for students to fit the workshop into their existing schedules. Students may take one or both workshops. Prerequisite: Open to students in grades 10-12

Fee for a six-week creative writing workshop is \$395

## Writing Labs (for JE001, JE002, and OE010)

The OHS Writing and Resource Center offers supplemental weekly Writing Labs for the following courses: JE001, JE002, and OE010. These weekly labs are intended to support students in completing their writing assignments in each class. Experienced writing tutors work with students on every aspect of the writing process-from close reading and prewriting strategies to the final revision and edit-as they strive toward completion of major and minor assignments. Students enrolled in these labs commit to attending all meetings, and enrollment is limited. Prerequisite: Students must be concurrently enrolled in either JE001, JE002, or OE010 to participate in the lab associated with each course.

## HUMANITIES

In the Humanities Division, students and instructors explore human values and dilemmas as they are expressed in history and the arts. Our courses offer students the opportunity to pursue a wide range of subjects across disciplines, all of which develop skills of critical thinking and writing through engagement with rich and diverse cultural material. Students learn about how history is made, defined, used; about the values of different cultures; about what goes into the creation of a work of art. Our courses question common assumptions, uncover meaning in artistic works, and explore new ways to understand cultural interaction past and present. Whether through the study of history or the fine arts, Humanities courses provide students with the academic foundations necessary to successfully pursue college-level work, while developing critical and interpretive skills that have far-reaching applications beyond the classroom. In our AP and advanced-level courses, students in fact have the opportunity to pursue college-level work in these disciplines.

Our history curriculum engages students in rigorous study of key historical periods and subjects, offering introductory and advanced courses in world and US history, as well as capstone courses focused on significant historical topics. History courses develop students' ability to analyze primary and secondary sources in an interdisciplinary context, while encouraging them to think critically and write persuasively about historical topics.

In the arts, our music course develops and deepens students' skills in musical theory and practice, covering a range of musical domains including composition, performance, and musical forms. Courses that deal with the history and philosophy of art and film develops students' analytic, interpretative, and written skills with regard to visual culture through the examination and discussion of exemplary films from diverse cultural contexts.

Humanities electives on American Legal Studies, and on the Study of Mind, provide students the opportunity to apply contemporary scholarship in these fields to pressing present-day political, legal, and ethical issues, while honing their analytic skills.

## THE ARTS

## COURSE DESCRIPTIONS

## High School

## Portrait Drawing (OPD10)

 Semester Course, 2.5 units, Fall onlyTentative offering
A studio drawing course for high-school students of all skill levels-from beginning to more advanced-with interest in drawing the human head. Students will learn the elements of drawing and composition with a focus on portraiture through demonstration, sequenced exercises, source information, and critiques using a variety of materials and techniques, including quick sketch, long and short poses, structure and proportion of the face, basic facial anatomy, contour/cross-contour, light and shadow, perspective, measurement, and positive/negative space. In addition, students will gain an appreciation and understanding of the role of portrait drawing through history as well as its aesthetic and cultural value. Offered in collaboration with Otis College of Art and Design. Prerequisite: open to students in grades 9-12

## Landscape Drawing (OPD11)

Semester Course, 2.5 units, Spring only

## Tentative offering

A studio drawing course for high-school students of all skill levels-from beginning to more advanced-with interest in drawing the natural and man-made landscape. Students will
learn the elements of drawing and composition with a focus on landscape through demonstration, sequenced exercises, source information, and critiques using a variety of materials and techniques to capture a variety of elements, including mountains, desert, forest, ocean, city, and the fantastic. In addition, effects of weather, changing light, rain/clouds, and geological and natural phenomena such as volcanoes and tornadoes are covered. Students will further explore the rich tradition of landscape in art as well as its cultural and artistic relevance throughout history. Offered in collaboration with Otis College of Art and Design. Prerequisite: open to students in grades 9-12

## AP Music Theory (OMT01) <br> Year course, 10 units

AP Music Theory is a year-long course that examines the harmony and form of Western European art music from the Baroque, Classical, and Romantic eras, approximately 1700-1900. Special topics in early music or post-tonal music will be explored from the date of the AP Exam until the end of the school year. This course also includes instruction in sight-singing and ear-training. It is recommended that students enter the course with the ability to read pitch and rhythm at a basic level. Other fundamentals such as recognizing all 24 key signatures; the natural, harmonic, and melodic scales; and compound and syncopated rhythm will be covered at the beginning of the first semester. Prerequisite: Consent of instructor and ability to read bass and treble clefs

## History and Philosophy of Art (OA015)

Semester Course, 5 units, Fall only
This course offers an introduction to the study of the visual arts and aesthetics. Primary emphasis is on methods for looking at, thinking about, and writing about art, with additional focus on analysis of the values informing judgments of beauty and taste. Works of art demonstrating distinctive means of expression in visual form will be examined as products of cultural, social, and political values from ancient times to the present, through the investigation of various historical periods, pivotal artists/works, creative practices, and major themes of Western and world civilization. Prerequisite: Modes of Writing and Argumentation (OE011) or consent of instructor

## Film and War (OF015)

## Semester Course, 5 units, Spring only

This course will introduce students to the study of film by exploring the theme of film and war. From the earliest days of film, directors have found war to be a compelling subject, and audiences have been drawn to the cinematic experience of war. We will consider different ways in which war has been represented cinematically, investigate how film develops and is deployed during times of war, and explore how film's potential and impact is understood in relation to war. Students will learn the concepts and terminology of film analysis, and explore the various ways in which film's significance has been interpreted and understood over time, developing analytic reading and writing skills with regard to visual culture and a deeper understanding of the cultural significance of film and its power as an art form. Prerequisite: Modes of Writing and Argumentation (OEO11) or consent of instructor

## HISTORY

The history curriculum at Stanford OHS introduces students to the rigorous study of significant historical periods and subjects, ranging from the origins of human civilization to the complexities of the twenty-first-century world. As students complete their coursework, they learn how to read primary sources, think about historical causation, and write persuasive essays based upon the careful analysis of evidence. Students also learn how to examine the perspectives of diverse social and political groups. The history curriculum provides students with historical knowledge and analytical skills that will allow them to thrive in a university setting. Interdisciplinary in its approach, this curriculum helps students make connections between history and other disciplines in the social sciences and the humanities.

The sequence of history courses allows students to build upon recently acquired historical skills and knowledge as they progress through the curriculum. It begins with a middle school course, Introduction to United States History, which provides students with an understanding of the major political events and social changes in the United States between the American Revolution and World War I. This course introduces students to the study of brief primary sources. Empires and World Civilizations to 1800 broadens students' understanding of history, focusing on the origins, development, and interactions of complex societies, beginning with ancient Mesopotamia and Egypt and concluding with 18th-century Europe. After completing World Civilizations, students have the opportunity to develop their skills in historical study in Revolutions and Rebellions. This course prepares students for advanced work in history through an exploration of the causes and nature of sudden, dramatic changes in modern societies, examining a range of texts and sources (art, literature, diaries, etc.). Students may pursue advanced history study in either Globalization and Imperial Exchange or AP US History. Globalization and Imperial Exchange deepens students' knowledge of global history, sharpens their approach to primary sources, and encourages them to make connections between past and present events. AP United States History is the next course in the curriculum. It begins with a study of the colonial settlement of North America and continues into recent decades. In this course, students write original interpretations of primary sources and learn how to situate major developments in the United States within a global context. Students may then advance to an Advanced History Research Seminar, which provides students the opportunity to research and study a major historical topic extensively.

The history courses cultivate students to think critically, chronologically, and causally. Students are encouraged to situate major historical events in time and in relation to other events. Our courses also enable students to make connections between history and other disciplines, and connections between historical events and the modern world, which help them develop the abilities to interpret and analyze primary and secondary sources within their historical context.


## COURSE DESCRIPTIONS

## Middle School

## Introduction to US History (JH001) Year course

This course prepares students for further work in the social sciences and the humanities through the study of major themes in early American and United States history. Students learn how to think historically and how to read primary sources (e.g., letters, speeches, images, and artifacts). Assignments draw on an American history textbook, selected primary sources, maps, visual material, and internet resources. Prerequisite: Enrollment in Fundamentals of Expository Writing (JE001), or placement exam

## Empires and World Civilizations to 1800 (JH002) Year course

This course examines world history from the beginnings of the earliest civilizations in Mesopotamia to the formation of global networks in the eighteenth century. In addition to examining the unique features of individual civilizations, students will uncover the similarities and connections between seemingly distant and different societies. The course will often turn to discussions of empires to highlight these major patterns and linkages in world history. Analysis of historical documents in class discussions and written assignments will push students to think critically and craft original arguments about important issues from the ancient world to the dawn of the modern era. Prerequisite: Enrollment in Fundamentals of Literary Analysis (JE002), or placement exam

## High School

## Revolutions and Rebellions (OH005) Year course, 10 units

This course will examine the causes and nature of sudden, dramatic changes in modern societies. Building on skills acquired in earlier humanities and English courses, students will analyze how diverse individuals and communities have experienced and influenced major social and political upheavals. Students will study the origins and nature of the American Revolution, the French Revolution, and the Haitian Revolution, as well as examine reform movements of the late eighteenth century. Students will examine a wide range of texts and sources, including artwork, literature, political pamphlets, and philosophical writings. This course will serve as preparation for advanced work in history. Prerequisite: Enrollment in or completion of Literary Analysis and Argumentation (OEOO9) or Textual Analysis and Argumentation (OEO10)

Globalization and Imperial Exchange: Alexander the Great to NATO (OH010A)

## Year course, 10 units

This course examines critical developments in the long his-
tory of globalization and empire from the Hellenistic Era to the present day. In case studies students will work closely with primary sources to uncover the impacts of empires and explore how empires connected the world by facilitating the exchange of peoples, ideas, and goods across geographic and cultural barriers. Students will examine key moments in imperial history, such as the decline of the Roman Empire or the discovery of the New World, in which the rise and fall of empires resulted in major transformations in global history. Students will explore these convulsions through the perspective of diverse historical actors, ranging from missionaries and philosophers to nomads and pirates. Through these investigations students will learn how individuals, communities, and institutions adapted to and resisted imperial expansions and interconnections. Prerequisite: Textual Analysis and Argumentation (OEO10); Recommended: Revolutions and Rebellions (OHOO5)

## AP United States History (OH011) Year course, 10 units

The AP US History course introduces students to American history, covering the period from the seventeenth century to the present. The course focuses on political life, social structure, external relations, and cultural developments. The course highlights the specificity of the American experience by situating national developments in a global context. Students broaden and deepen their knowledge of United States history, analyze primary sources and historical accounts, and create their own interpretations. Course materials include a textbook and primary sources. Prerequisite: Textual Analysis and Argumentation (OE010); Recommended: Revolutions and Rebellions (OH005)

## Advanced History Research Seminar (OH032) Year course, 10 units <br> 2016-17 Topic: Contemporary History

This seminar enables students to complete advanced coursework on a major historical topic or theme. During the 20162017 year, students will research and study major topics in contemporary history. In addition to learning how to engage critically with debates that exist among historians, students will develop and discuss their own historical interpretations. Students will learn how to conduct research, which will culminate in two research papers (one per semester) that investigate thoroughly particular historical issues or problems. Prerequisite: One of the following Stanford OHS courses: DFRL, CRA, AP World History, AP US History, AP English Language, AP English Literature, or any other advanced English course text, or thinker. Prerequisite: One of the following Stanford OHS courses: DFRL, CRA, AP World History, AP US History, AP English Language, AP English Literature, or any other advanced English course

## HUMANITIES ELECTIVES

## High School

## Leadership Course Series (OLO10)

Semester Course, 1 unit, Fall/Spring
The Leadership Course Series seeks to encourage and nurture future leaders. In this seminar-style course, students attend monthly special presentations by Silicon Valley CEOs, entrepreneurs, inventors, professors, investment bankers, Nobel Laureates, politicians, philanthropists and others who share their personal background and their views on leading in the new global economy. Students also review selected readings, maintain a journal, and once a month engage in lively class discussion to explore the complexities and multiple dimensions of leadership through eight central themes or "lenses" which are applied to each of the special presentations. Students gain important insights on topics including the qualities of effective leaders, the language of leadership, teamwork, the importance of self-leadership, motivating and inspiring others, the application of design principals to create innovative solutions, and the strategic acquisition and subsequent application of influence and power. This course receives 1 unit of elective credit per semester. Topics vary, and the course may be repeated. Prerequisite: open to students in grades 9-12

## Legal Studies: Constitutional Law (OLS10) Year Course, 10 units

This course examines the U.S. Constitution as drafted and-to a much greater extent-as it has come to be interpreted. Students will learn basic constitutional law and will creatively analyze "fact patterns," i.e., specific real-world facts that call for legal interpretation. Initial focus will include the balance of powers under the Constitution, as well as individual rights, such as freedom of speech (and some exceptions, like defamation); freedom of the press; freedom of religion; the right to remain silent and the right to counsel; the right to equal protection under the law; and the right to be free from cruel and
unusual treatment. As we progress through the year, we shift from general principles of constitutional law toward specific applications of constitutional law. Thus, late in the fall semester, we will consider the docket of the U.S. Supreme Court's 2016-2017 term and will select a pending case (by guided voting). At midterm during the spring semester, each student will have drafted a brief in the case; oral argument will be the spring final exam. Notably, the Supreme Court's own decision on the case will probably coincide with the end of the year. Thus, even as the Supreme Court is making its determination of the present-day meaning of a provision of the Constitution, students in this course will make theirs. Supreme Court opinions will be the primary texts for the course; a textbook on constitutional law is the secondary text. Prerequisite: Completion of or enrollment in Textual Analysis and Argumentation (OEO10)

## The Study of the Mind: Psychology, Neuroscience, and Philosophy (OPS10) <br> Year course, 10 units

In this course, we will study the mind and human behavior by exploring the insights that have emerged in the intersecting fields of neuroscience, psychology, and philosophy. We will draw on texts such as Pinker's The Language Instinct, Kahneman's Thinking Fast and Slow, Wilson's Strangers to Ourselves, and Sacks's The Man who Mistook his Wife for a Hat, to examine language and mind, reasoning and biases, the unconscious, and abnormal psychology. Topics may include Freudian psychoanalysis, the neurobiology underlying emotion, and animal cognition, as well as topics to be determined by student interests. While not designed to strictly follow the AP Psychology curriculum, this course will provide a conceptual foundation for students who are interested in preparing independently for the AP Psychology exam. Prerequisite: Methodology of Science - Biology (OMSB9) or high-school biology and Modes of Writing and Argumentation (OE011) or equivalent

## ANCIENT AND MODERN LANGUAGES

The Stanford OHS Ancient and Modern Languages Division is built on the belief that the mastery of any language complements and strengthens a student's intellectual development across all disciplines, in addition to being a rewarding and useful skill in its own right. The central aim of every language course at Stanford OHS is fluent communication in the target language, including both oral communication and the accurate comprehension and translation of written texts. In the case of ancient languages, emphasis is placed on understanding written texts, though speaking and listening may be used to facilitate this goal. Each course also exposes students to the culture associated with the language they are learning, including that culture's history, artifacts, customs, values, and literature. Students are expected to use their increasing knowledge of another language and culture to sharpen their interpretive and analytical techniques, communicate in their native language with greater complexity and precision, and deepen their understanding of their own cultural background as it exists within a broader global and historical context.

In order to allow students to achieve an exceptional degree of fluency, language courses at Stanford OHS are rigorous, move at an accelerated pace, and meet up to four times a week for live discussion sections.


## COURSE DESCRIPTIONS

## Middle School

## LATIN

Latin 1A (JLA1A)

## Year course

The first year of this two-year sequence (comprising Latin 1A and Latin 1B) gives students the foundations of Latin grammar and the tools necessary to read and translate Latin passages. This course also introduces students to the study of Roman history, mythology, culture, and daily life through lectures and supplemental readings. Emphasis will be placed on a mastery of English grammar and syntax through the study of Latin. Students will complete chapters 1-12 of the Latin for the

New Millennium, Level 1 textbook, and completion of Latin 1A and Latin1B will successfully prepare students for placement into Latin 2 at the high school level.

Latin 1B (JLA1B)
Year Course
The second year of this two-year sequence (comprising Latin 1 A and Latin 1B) continues to give students the foundations of Latin grammar and the tools necessary to read and translate Latin passages. This course also introduces students to the study of Roman history, mythology, culture, and daily life through lectures and supplemental readings. Emphasis will be
placed on a mastery of English grammar and syntax through the study of Latin. Students in this course will complete chapters 13-21 of the Latin for the New Millennium, Level 1 textbook. Successful completion of Latin 1B will prepare students for placement into Latin 2 at the high-school level. Prerequisite: Latin 1A

## High School

## CHINESE

Chinese 1 ( OCH 11 )

## Year course, 10 units

First-year Mandarin Chinese is designed for students who have no previous experience with the Chinese language and emphasizes practical speaking and listening skills. Students also learn several hundred basic characters, and to read and write sentences, dialogues, and short paragraphs. Aspects of Chinese culture and history are introduced. Prerequisite: Middle school students must file a petition to be considered for this course

Chinese $2(\mathrm{OCH} 12)$

## Year course, 10 units

Second-year Mandarin Chinese introduces a greater variety of vocabulary and more complex sentence structures while continuing to apply these across the basic four skill areas: listening, speaking, reading, and writing. Practical, everyday situations are emphasized, while reading and culture studies are expanded to include traditional Chinese legends and fables. 800-1000 characters will have been introduced by the end of the second year. Prerequisite: Chinese 1 (OCH11) or equivalent as determined by placement exam

## Chinese 3 (OCH13)

## Year course, 10 units

Third-year Mandarin Chinese continues to introduce vocabulary and characters, and adds advanced phrases and sentence structures. Students are exposed to an increasing variety of authentic material in addition to the textbooks. Readings, discussions, compositions, and reports are based on issues encountered in present-day Chinese society and in student and teenage life. 1200-1400 characters will have been introduced by the end of the third year. Prerequisite: Chinese 2 (OCH12) or equivalent as determined by placement exam

AP Chinese (OCH03)

## Year course, 10 units

Fourth-year (AP) Mandarin Chinese sharpens the listening, speaking, and composition skills that students need to succeed on the AP Chinese Language and Culture exam. Students use a wide variety of audio and print material, and examine many aspects of both traditional and modern culture. 16001800 characters will have been introduced by the end of the fourth year. Prerequisite: Chinese $3(\mathrm{OCH} 13)$ or equivalent as determined by placement exam

## LATIN

## Latin 1 (OLA11)

Year course, 10 units
In this accelerated introductory course, students will master the basics of Latin grammar and vocabulary and begin reading short Latin texts of increasing complexity. Students also study Roman history, mythology, culture, and daily life through lectures and supplemental readings. Understood goals: Mastery of key grammar and syntax together with vocabulary; understanding of key components of Roman history and culture. Prerequisite: Middle-school students must file a petition to be considered for this course

## Latin 2 (OLA12)

## Year course, 10 units

In this Intermediate Latin course, students complete their introduction to grammar and vocabulary in the fall semester and begin to focus on the translation of longer sections of Latin prose in the spring. Students continue to study Roman history and culture with a particular emphasis on Latin literature. Understood goals: Translation of original Latin and mastery of more complex grammar and syntax; deeper understanding of Roman history, particularly of the Republic. Prerequisite: Latin 1 (OLA11) or equivalent as determined by placement exam

Latin 3 (OLA13)

## Year course, 10 units

In this advanced Latin course, students concentrate on refining their reading skills and tackling longer passages of prose and poetry with attention to accurate translation and in-depth literary analysis. Readings will be drawn from works by authors such as Cicero, Caesar, Catullus, Ovid, Horace, Plautus, Pliny, and Seneca. Understood goals: Translation of larger passages of original Latin, including poetry; refinement of skills in literary analysis and essay writing; deeper understanding of Roman literary history. Prerequisite: Latin 2 (OLA12) or equivalent as determined by placement exam

## AP Latin (OLA03) <br> Year course, 10 units

In this course, students prepare for the Latin AP exam on Vergil's Adenoid and Caesar's Gallic War. The course includes significant amounts of translation as well as close readings of the text, its themes and historical contexts. Students refine their mastery of Latin grammar as well as their critical thinking skills and essay writing. Students who take this course are well prepared for the Latin AP exam. Understood goals: ability to translate with accuracy and speed; ability to analyze Latin texts in coherent and persuasive essays; deeper understanding of Roman history and literature, particularly of the lateRepublican and early-Imperial period. Prerequisite: Latin 3 (OLA13) or consent of instructor or equivalent as determined by placement exam

## SPANISH

Spanish 1 (OSP11)

## Year course, 10 units

This course is designed for students who have no previous experience with the Spanish language. Students are introduced to and develop mastery of basic Spanish language grammar and conversation skills, in a manner that builds confidence in language learning and learning in general. Students are exposed to history, literature, music, and current events in the Spanish-speaking world, and are encouraged to discover relationships between the Spanish language and other fields of study. Prerequisite: Middle-school students must file a petition to be considered for this course

## Spanish 2 (OSP12)

Year course, 10 units
This course is designed for intermediate students and provides an excellent introduction to the skills required for advanced Spanish language study. Students expand their knowledge of grammar and vocabulary and improve their reading comprehension and oral proficiency skills. This course emphasizes the connection between the Spanish language and society and introduces students to rich and diverse literature, poetry, and music in the Spanish-speaking world. Prerequisite: Spanish 1 (OSP11) or equivalent as determined by placement exam

## Spanish 3 (OSP13)

## Year course, 10 units

This course is designed for intermediate-advanced students and is conducted entirely in Spanish. It is designed for students who wish to succeed in Advanced Placement Spanish and/or become fluent in Spanish across interpersonal, interpretive, and presentational communication modes. Students become successful at listening to, describing, narrating, and presenting complex information and writing cohesive and coherent essays on a variety of topics. They greatly expand their understanding of Spanish and Hispanic cultures through the in-depth study of history, literature, poetry, art, music, and current events. Prerequisite: Spanish 2 (OSP12) or equivalent as determined by placement exam

AP Spanish (OSP03)

## Year course, 10 units

AP Spanish Language and Culture offers students the opportunity to develop and increase their proficiency in interpretive, interpersonal, and presentational communication. In order to provide a rich and diverse learning experience, the course integrates authentic resources (including online print, audio, video, magazine and newspaper articles, and literary works) that engage students in an exploration of culture in both contemporary and historical contexts. AP Spanish Language and Culture is structured around the following six themes: global
challenges, beauty aesthetics, families and communities, personal and public identities, contemporary life, and science and technology. The class is conducted entirely in Spanish and includes frequent writing and presentations. Prerequisite: Spanish 3 (OSP13) or equivalent as determined by placement exam

## Spanish 5 (OSP15)

## Year course, 10 units

Spanish 5 is designed for advanced students who have successfully completed AP Spanish and are interested in continuing their study of the Spanish language and Spanish-speaking cultures. This course will be taught entirely in Spanish and will help students become successful at listening to, describing, narrating, analyzing, and presenting complex information. Students will be exposed to a variety of Spanish and Latin American works in narrative fiction, poetry, drama, and essay. Students will also engage with a variety of topics and debates common to contemporary issues in the Spanish-speaking world such as race and ethnicity, gender, interpersonal relationships, and globalization. Prerequisite: AP Spanish (OSP03) or Directed Study in Spanish Literature (OSPLTD)

## MATHEMATICS

The Mathematics Division offers students the ability to pursue a wide range of rigorous course offerings in mathematics, computer science, and economics. The curriculum focuses on building a solid foundation in mathematical sciences, with courses focused on both mathematical theory and applications of mathematics. The Division emphasizes vertical integration of courses from foundational secondary mathematics courses through advanced university-level offerings, and is committed to working to ensure that students adapt a sequence of study that includes both depth and breadth in mathematics.

The mission of the mathematics program at Stanford OHS is to provide students with a broad understanding of mathematics to help students formulate and use mathematical tools for critical thinking and problem solving. This broad understanding encompasses computation, problem solving, logical reasoning, generalization, and abstraction. Students who successfully complete Stanford OHS mathematics courses will understand and be able to apply the concepts and techniques that are foundational to secondary-level mathematics, and they will have developed independent investigative skills that will enable them to work towards solutions of novel problems. Students will develop an appreciation for mathematics and its role in the modern world, including connections with other disciplines, and they will be well prepared for advanced study in university-level mathematics.


## COURSE DESCRIPTIONS

## Middle School

## Honors Prealgebra (JM007) <br> Year course

This course provides students with the solid foundation in arithmetic, geometry, measurement, and related topics required for success in Honors Beginning Algebra. Specific topics include arithmetic operations on integers and rational numbers; variables, expressions, and equations; area, volume, and the Pythagorean Theorem; ratio, proportion, and percent; measurement and graphing; and solving application problems.

## High School

## Honors Beginning Algebra (OM011) Year course, 10 units

For students who previously have had little or no formal exposure to algebra. Primary topics include: the elementary structure and language of real numbers, understanding and manipulating algebraic expressions including polynomials, radical expressions, and rational expressions, solving linear and second-degree equations, understanding inequalities and systems of equations. Emphasis is placed on word problems and graphing. Prerequisite: Honors Prealgebra; Recommended: a rigorous foundation in elementary mathematics, including arithmetic, fractions, geometry, and measurement

## Honors Intermediate Algebra (OM012) Year course, 10 units

For students with previous exposure to algebra but not sufficient mastery for OM013 Precalculus with Trigonometry. This course reviews and extends the topics of beginning algebra: linear equations and inequalities, absolute value, quadratic inequalities, roots and exponents, and systems of equations. Other topics include: exponential and logarithmic functions, conic sections, and arithmetic and geometric sequences. Prerequisite: Honors Beginning Algebra (OM011)

## Honors Geometry (OM015)

## Year course, 10 units

This course combines the traditional deductive approach to geometry in the tradition of Euclid with the contemporary computational and discovery approaches. Primary topics include: logic, congruence of polygons, inequalities, similarity, properties of circles, area of plane figures, surface area and volume of solids, basic trigonometry, and coordinate geometry. Prerequisites: Honors Beginning Algebra (OM011); Recommended: Completion of or concurrent enrollment in Honors Intermediate Algebra (OM012)

## Honors Precalculus with Trigonometry (OM013) Year course, 10 units

For students who have had substantial previous exposure to algebra. The course builds on and deepens all the topics from OM011 Beginning Algebra and OM012 Honors Intermediate Algebra. Functions are studied in detail, including composition and inverses. Other topics include: the algebra of exponential and logarithmic functions, techniques of graphing and matrices, mathematical induction, sequences and series, and analytic geometry. Approximately one third of the course focuses on trigonometry and its applications. Prerequisite: Honors Intermediate Algebra (OMO12), Honors Geometry (OMO15)

## AP Calculus AB (OM4AB) <br> Year course, 10 units

An advanced placement course in differential and integral calculus. Topics: functions and graphs, limits, continuity, derivatives and differentiability, applications of the derivative, curve sketching, related rates, implicit differentiation, Riemann sums, indefinite and definite integrals, techniques of integration, applications of integration, the Fundamental Theorem of Calculus, l'Hospital's rule, and numerical approximations to definite integrals. This course prepares students for the AP Calculus AB exam. Prerequisite: Honors Precalculus with Trigonometry (OM013)

## AP Calculus BC (OM4BC) Year course, 10 units

An advanced placement course in differential and integral calculus. Topics: functions and graphs, a rigorous development of limits, continuity, derivatives and differentiability, applications of the derivative, curve sketching, related rates, implicit differentiation, parametric equations, polar functions, vector functions, l'Hospital's rule, Riemann sums, indefinite and definite integrals, techniques of integration, applications of integration, the Fundamental Theorem of Calculus, numerical approximations to definite integrals, improper integrals, differential equations, polynomial approximations, Taylor series, limit comparison test, alternating series error bound and absolute and conditional convergence and divergence of infinite sequences and series. This course prepares students for the AP Calculus BC exam. Prerequisite: Honors Precalculus with Trigonometry (OM013)

## AP Calculus C (OM42C) Semester course, 5 units, Fall only

Further study of differential and integral calculus. Topics: a more rigorous development of limits and derivatives, advanced techniques and applications of integration, power series, calculus for parametric and polar coordinates, introduction to differential equations. Together with AP Calculus AB (OM4AB), this course prepares students for the $A P$ Calculus $B C$ exam. This course is for students who have completed the AP Calculus AB curriculum. Prerequisite: AP Calculus AB (OM4AB)

## Advanced Problem Solving \& Proof Techniques (OM050) Semester course, 5 units, Spring only

This semester-long course in theoretical mathematics develops students' facility with abstract conceptual work and prepares students for subjects at the upper-division undergraduate level. Students are expected to have completed Honors Precalculus with Trigonometry; prior completion of AP Calculus is recommended. Students gain experience analyzing complex problem situations, formulating solutions, rigorously justifying arguments, and presenting mathematical reasoning clearly and effectively, both orally and in writing. Course topics include general guidelines for analyzing problems, proving conditional and biconditional statements, working with negations, proof by contradiction, problem-solving heuristics, understanding quantifiers, mathematical induction, the construction method, working with nested quantifiers, and special proof techniques. The course focuses on practical prob-lem-solving and proof-construction techniques that will be invaluable in many university-level mathematics courses. Prerequisite: OM013 Honors Precalculus with Trigonometry. Recommended: OM4BC AP Calculus BC or OM42C Calculus C

## AP Statistics (OM060) <br> Year course, 10 units

Statistics is now an essential part of many disciplines in science and humanities. This year-long course investigates basic methods and concepts in statistics, covering the following broad themes: exploring data, sampling and experimentation, anticipating patterns, statistical inference. Students from a wide variety of backgrounds are encouraged to take the course. Also, students who have taken OMSB9, Methodology of Science - Biology, may consider the course as a continuation of the elementary statistics studied in the course. Students who successfully complete the course will be well prepared for the AP Statistics exam. For students who have had substantial previous exposure to algebra and some background in elementary statistics. Prerequisite: Honors Intermediate Algebra (OMO12); Recommended: Methodology of Science - Biology (OMSB9), previous exposure to techniques of elementary statistics recommended

## University Level

Multivariable Differential Calculus (UM52A)
Semester course, 5 units, Fall only
Differential calculus for functions of two or more variables. Topics: vectors and vector-valued functions in 2-space and 3-space, tangent and normal vectors, curvature, functions of two or more variables, partial derivatives and differentiability, directional derivatives and gradients, maxima and minima, optimization using Lagrange multipliers. Prerequisite: AP Calculus BC (OM4BC) with AP Exam score of 4 or 5 and consent of instructor, or Calculus C (OM42C) with a grade of $A$ - or better and consent of instructor

## Multivariable Integral Calculus (UM52B) Semester course, 5 units, Spring only

Integral calculus for functions of two or more variables. Topics: double and triple integrals, change of variables and the Jacobian, vector fields, line integrals, independence of path and the fundamental theorem of line integrals, Green's theorem, divergence theorem, and Stokes' theorem. Prerequisite: Multivariable Differential Calculus (UM52A) and consent of instructor

## Linear Algebra (UM51A) <br> Semester course, 5 units, Fall only

An introductory course in linear algebra. Topics: linear spaces, transformations, matrices, eigenvalues, eigenvectors, and linear operators. Prerequisite: AP Calculus BC (OM4BC) with AP Test score 5 or Multivariable Differential Calculus (UM52A) and consent of instructor; Recommended: prior universitylevel course in mathematics, prior experience reading and writing mathematical proofs is required. If the student has not taken Multivariable Differential Calculus (UM52A), an interview with the instructor will be required. Completion of an exam demonstrating proficiency reading and writing proofs may also be required.

## Differential Equations (UM53A) Semester course, 5 units, Spring only

Basic techniques and methods for solving ordinary differential equations. Topics: linear, separable, and exact equations, existence and uniqueness theorems, difference equations, basic theory of higher order equations, variation of parameters, undetermined coefficients, series solutions, Laplace transform, systems of equations. Prerequisite: Linear Algebra (UM51A) and consent of instructor. Proficiency with partial derivatives is required. Prior experience reading and writing mathematical proofs is required.

## Real Analysis (UM115)

## Semester course, 5 units, Directed study

Theory of functions of a real variable. Topics: sequences, series, limits, continuity, differentiation, integration, and basic point-set topology. Prerequisite: Multivariable Integral Calculus (UM52B) and Linear Algebra (UM51A) and consent of instructor; Recommended: Differential Equations (UM53A). Advanced experience reading and writing mathematical proofs is required.

## Complex Analysis (UM106) <br> Semester course, 5 units, Directed study

Theory of differentiation and integration of complex functions. Topics: algebra of complex numbers, complex functions, multi-valued functions, exponentials, logarithms, analyticity, integrals, power series, Laurent series, residues, isolated singularities, poles and zeros. Prerequisite: Real Analysis (UM115) and consent of instructor. Advanced experience reading and writing mathematical proofs is required.

## Modern Algebra (UM109) Semester course, 5 units, Directed study

Theory of abstract algebra, with particular emphasis on applications involving symmetry. Topics: groups, rings, fields, matrix and crystallographic groups, and constructibility Prerequisite: Linear Algebra (UM51A) and consent of instructor; Recommended: Number Theory (UM152). Advanced experience reading and writing mathematical proofs is required.

## Number Theory (UM152)

## Semester course, 5 units, Spring only

Introduction to number theory and its applications. Topics: Euclid's algorithm, divisibility, prime numbers, congruence of numbers, theorems of Fermat, Euler, Wilson, Lagrange; residues of power, quadratic residues, introduction to binary quadratic forms. Prerequisite: Honors Precalculus with Trigonometry (OMO13) and consent of instructor; Recommended: prior experience reading and writing mathematical proofs

## Logic in Action: A New Introduction to Logic (UM157) Semester course, 5 units, Fall only

Fall only Logic provides an essential methodological framework of reasoning connecting a wide variety of disciplines in the humanities and sciences, including philosophy, mathematics, computer science, linguistics, cognitive science, and economics. This course will introduce students to logic and its applications highlighted by recent developments in these fields. We will use the open source logic course "Logic in Action" (http://www.logicinaction. org), which has been developed by the international team of Prof. Johan van Benthem at Amsterdam, and taught in many places, including Stanford, Amsterdam, Beijing, Seville, etc. Prerequisite: Honors Precalculus with Trigonometry (OM013) and consent of instructor; Recommended: prior experience reading and writing mathematical proofs

## COMPUTER SCIENCE



## COURSE DESCRIPTIONS

## High School

## Programming in C : Techniques and Algorithms (OCS10) Year course, 10 units

This introductory course in programming offers students a solid foundation in understanding how to use a programming language. Working in C++, students will learn fundamentals of programs, including basic syntax, data types, expressions, control statements and the interaction between the compiler and the hardware. As students gain proficiency with programs, more sophisticated tools are used, such as arrays, sorting algorithms, user-defined types, recursion and object-oriented programming. Focus is on top-down design and structured programming. Prerequisite: Honors Intermediate Algebra (OM012)

## AP Computer Science (OCS15) Year course, 10 units

This course introduces students to the concept of object oriented programming. The basic and some advanced features of Java are studied including designing and building applications such as web applets. Core topics in the context of the Java programming language: fundamental data structures such as arrays and algorithms (especially those for sorting and searching) and the relationship between computer hardware and a compiled program. Much of the course is project-based, with assignments stressing the design of classes and algorithms appropriate to a problem. This course prepares students to take the A level AP Computer Science Exam. Students are also introduced to standard Java libraries and features such as error handling, threads, networking, and designing and building graphical user interface using AWT and Swing libraries. Recommended: concurrent (or previous) enrollment in Honors Precalculus with Trigonometry (OM013). A placement exam will be required for students who have not previously taken Stanford OHS computer science courses.

## Data Structures and Algorithms in Java (OCS25) Year Course, 10 units

This year-long course continues and deepens students' understanding and practice of object oriented programming. Students are expected to have familiarity with programming in Java at the AP Computer Science A level. Core topics in the context of the Java programming language include practical implementations of fundamental and more advanced data structures (linked lists, hash encoded storage, binary search tree and red-black trees), algorithms for organizing and manipulating data including sorting, searching, and traversal algorithms, and time complexity of algorithms in a problem-solving oriented context. In-depth exploration of graph traversal algorithms (depth first search, breadth first search, shortest paths, and connected components) and string processing algorithms (substring search and string compression) is also included. Much of the course is project-based, with assignments stressing the design of classes and algorithms appropriate to a particular problem. Prerequisite: AP Computer Science (OCS15) or a score of at least 4 on the AP Computer Science Exam, and Honors Precalculus with Trigonometry (OM013). A placement exam will be required for students who have not previously taken Stanford OHS computer science courses.


## COURSE DESCRIPTION

## High School

## AP Microeconomics (OEC10) <br> Semester Course, 5 units, Fall only

The principles of economics that apply to the functions of individual decision makers, both consumers and producers, are discussed. The class centers around the basic supply and demand structure of the economy with emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Emphasis on the material included on the AP Microeconomics exam. Corequisite: Honors Precalculus with Trigonometry (OM013) or equivalent

## Advanced Topics in Microeconomics (OEC15) Semester Course, 5 units, Spring only

Advanced Topics in Microeconomics is a semester-long course that explores a variety of topics in microeconomics at the post-AP or intermediate level while engaging students in the basic principles and practices of economic research. Students will gain a deeper understanding of microeconomics topics including the theoretical underpinning of supply and demand, game theory, bargain theory, the principal-agent problem, Pareto optimality, general equilibrium, experimental and empirical study design, and interpretation of data. Students will apply their knowledge of these topics by composing a review article or significant research paper on a topic of their own choosing. Prerequisite: AP Microeconomics (OEC10) or equivalent or score of 5 on the AP Microeconomics Exam. Corequisite: Honors Precalculus with Trigonometry (OMO13)

## University Level

## Economics (UEC20)

Year course, 10 units, Not offered 2016-17
This university-level Economics course focuses on fundamental microeconomics concepts at an early undergraduate level. The course is divided into three sections. Section one focuses on the consumer theory by first introducing the concepts of utility functions, indifference curves, the individual's constrained optimization of utility. The study of market equilibrium and price determination is investigated. Standard issues such as taxation, consumer and producer surplus, and Slutsky and Hicksian decompositions are covered. The second section focuses on the producer, introducing the concepts of production function, profit maximization, and the dual problem of cost minimization, factor demand functions, cost curves, competitive market price setting, and monopolistic markets. The third section focuses on the following advanced microeconomic topics: net present value; basic game theory and the prisoner's dilemma; elements of general equilibrium theory, including the Edgeworth box, Pareto efficiency, and elements of welfare theory; market failures, including externalities and public goods. Prerequisite: Advanced Topics in Microeconomics (OEC15), AP Calculus $A B$ (OM4AB) or concurrent enrollment in $A P$ Calculus $B C(O M 4 B C)$, and consent of the instructor

## SCIENCE

The Stanford OHS laboratory sciences curriculum is designed to provide all students with the scientific knowledge and critical-thinking skills necessary to engage with science outside of the classroom and beyond high school, but also to afford flexibility to allow interested students to explore a particular scientific discipline more deeply. Middle-school courses set the foundation for scientific reasoning through an inquiry-based approach and introduce students to the fundamentals of physical and life sciences. Honors Environmental Science introduces students to the rigors of high-school level science through exploration of global scientific issues and experimentation. Honors-level courses explore the concepts necessary to scientific literacy in chemistry and physics and strengthen students' ability to apply concepts through experimentation. These courses prepare students for AP-level studies which offer in-depth exploration of each of the three fundamental disciplines of science (physics, chemistry, and biology). All middleschool and high-school level courses contain an at-home lab component during the year. In addition, students in Honors- and AP-level courses have the option of attending the corresponding summer lab course to further experience the techniques used to investigate questions within the discipline. Our advanced offerings in biology and university-level physics allow students to progress beyond the AP level.

Students can follow a variety of paths through the science curriculum, although it is recommended that students take at least one course in each of the three fundamental disciplines (physics, chemistry, and biology). Students are placed in courses based on interest and fulfillment of pre- and co-requisites. Students wishing to accelerate in the sciences have the option of satisfying Honors-level prerequisites on the basis of placement exam results.


## COURSE DESCRIPTIONS

## Middle School

## Inquiry-based Physics (JP001) Year course, Lab science

In this year-long course, students explore the fundamentals of physics through experimentation and discussion guided by the instructor. Through this engaging process, the instructor poses questions and counterexamples until the students reach a consensus in their experimentation, after which concepts are formally summarized. This course provides a strong foundation for work in more advanced science courses by introducing a number of basic skills, including significant figures, interpretation of graphs, problem solving, and the basics of laboratory work. Concepts covered include: Newtonian physics, fluids, thermodynamics, electricity and magnetism.

## Foundations in Science: Energy and Matter (JS002) Year course, Lab Science

This year-long seminar-style course introduces students to the concepts that provide the foundation for physics, chemistry, and biology. Students will explore energy and matter, two ideas that unify the sciences, and examine these core concepts from the perspective of each discipline. Students will use an inquiry-based approach with an emphasis on acquiring the background knowledge and perspective to develop research problems and will practice these skills through experimentation at home. Through exploration of the central themes of the course, students will additionally become familiar with the basic principles of scientific reasoning. The primary goal of the course is to provide students with a wellinformed introduction to science that prevents common misconceptions and that prepares students for high-school and AP-level laboratory sciences. Prerequisite: Inquiry-based Physics (JP001) or placement

## High School

## Honors Environmental Science (OS005) Year course, 10 units, Lab science

Honors Environmental Science introduces students to fundamental topics in earth and environmental science, and emphasizes their connection to everyday life. Topics include: earth's history and geology, plate tectonic theory, global climates and biomes, biodiversity and ecosystem services, biogeochemical cycling, evolution and human history, modern environmental impacts, global climate change, and alternative energy. Students complete experiential labs that prompt them to explore their local environments or dig into favorite topics in greater depth. Lab work helps students build scientific research and communication skills through mapping, graphing, analyzing data, researching the scientific literature, and presenting findings in class. This course is ideal for students who are excited to learn about environmental science and/or want to take a high school level science course in preparation for

Honors Physics or Honors Chemistry. Prerequisite: Completion of or enrollment in Honors Beginning Algebra (OM011)

## Astronomy (OASTR1)

## Semester course, 5 units, Spring only

This semester-long course introduces students to historical and modern astronomy. Topics include the nature of light, the atom, telescopes, and orbits. In addition, students will learn about the life cycles of stars, including an introduction to black holes. Through various activities and experiments, students will explore our place in the universe as well as the relative scales of astronomical objects. As a class, we will leverage our disparate locations to reconstruct historical calculations such as the circumference of the earth by Eratosthenes and the distance to the sun by Aristarchus. Engaging with current research, we will examine the modern astronomical data used to search for and categorize the thousands of planets outside our solar system. Prerequisite: Completion of or enrollment in Honors Beginning Algebra (OM011)

## Honors Chemistry (OCO05) Year course, 10 units, Lab science

Honors Chemistry is a year-long seminar-style course that introduces the fundamental language, ideas and tools used in the study of chemistry. This advanced introductory high school chemistry course covers key topics such as chemical nomenclature, stoichiometry, the periodic table, chemical bonding, equilibrium, kinetics, thermodynamics, nuclear chemistry, and common laboratory practices. Emphasis is placed on the use of chemistry in the natural world, the physical world and our daily lives. The course fosters skills necessary to describe chemical processes and behaviors and to solve numerical and verbal problems in chemistry. Through both at-home and virtual lab work, students learn useful chemistry laboratory techniques, gain the ability to formulate experimental questions, design scientific experiments, effectively articulate scientific findings, conduct error and statistical analysis, and strengthen understanding of course material. Upon completion, students will have a solid foundation in chemistry and will be prepared for AP Biology, AP Chemistry, and college-level chemistry courses. Prerequisite: Middleschool or high-school science course; Corequisite: Honors Intermediate Algebra (OM012)

Related course: Students also have the option of doing additional laboratory work during Summer @ Stanford (see OCL10 - Chemistry Lab).

## AP Chemistry (OC010)

## Year course, 10 units, Lab science

AP Chemistry is a year-long seminar-style course that teaches students the fundamental ideas and tools of modern chemistry and covers college-level introductory chemistry topics. Students become fluent in the language, symbols, laboratory skills, and concepts of chemistry. They learn to describe chemical names, the periodic table, types of reactions, chemical reactivity,
structure, bonding, thermodynamics, kinetics, electrochemistry and nuclear chemistry. Throughout the course they are exposed to applications of chemistry in organic chemistry, materials science, environmental chemistry and biochemistry. This course stresses problem solving in chemistry using verbal descriptions and mathematical relationships to describe chemical ideas and processes. AP Chemistry gives students hands-on laboratory experience by requiring students to perform experiments at home using lab equipment and reagents purchased from a chemical supplier or household chemicals. This course prepares students for the AP Chemistry exam. Prerequisite: Honors Chemistry (OCOO5) or passing score on AP Chemistry placement exam; Corequisite: Honors Intermediate Algebra (OM012)

Related course: Students also have the option of doing additional laboratory work during Summer @ Stanford (see OCL10 - Chemistry Lab).

## Chemistry Lab (OCL10) Summer course, 2 units

Chemistry Lab is a residential summer course held on the Stanford campus during Summer @ Stanford that allows students to explore chemistry topics through hands-on experimentation in a lab class setting. Experiments correspond with topics covered in Honors Chemistry (OC005) and AP Chemistry (OC010), and experiments will be scaffolded according to students' depth of understanding. Students will gain a variety of skills needed in a research lab, including experience with modern tools and techniques and effective communication of results. Examples of experiments that may be performed include chelation titration, calorimetry, nanoparticle synthesis and characterization, silver plating, synthesis/purification of aspirin, micro- and thin layer chromatography, extraction/purification of chlorophyll and carotene from plants, and UV-Vis and fluorescence spectroscopy. Prerequisite: Completion of Honors Chemistry (OC005) or AP Chemistry (OCO10) during the previous academic year

## AP Biology (OB010) <br> Year course, 10 units, Lab Science

AP Biology is a year-long seminar course that covers collegelevel introductory biology topics in molecular and cellular biology; anatomy, physiology, and diversity of plants, animals, and microbes; and ecology and evolution. Emphasis is placed on the themes that unify biology, including regulation of biological processes, energy transfer, continuity and change, evolution, the relationship between structure and function, emergent properties, interdependence in nature, the scientific process, and the relevance of biology in our everyday lives. Through at-home and virtual lab work, students learn useful biological techniques, gain the ability to design scientific experiments, effectively communicate results, and strengthen their knowledge of material presented in lecture. This course prepares students for the AP Biology exam. Prerequisite: Honors Chemistry (OC005), AP Chemistry (OC010), or consent of instructor

Related course: Students also have the option of doing additional laboratory work during the Summer @ Stanford (see

OBL10 - AP Biology Lab).

## AP Biology Lab (OBL10) Summer course, 2 units

AP Biology Lab is a residential summer course held on-campus during Summer @ Stanford that allows students to explore college-level introductory biology topics through hands-on experimentation. Experiments correspond with topics covered in AP Biology (OB010). Techniques utilized to explore these topics may include polymerase chain reaction (PCR), gel electrophoresis of nucleotides or proteins, ELISA, and microscopy. Emphasis is placed on understanding the process of science, experimental design and interpretation, and the relevance of biology to our everyday lives. Students gain experience with modern biological techniques currently used in molecular biology and medical diagnostic labs, as well as learning to effectively record and communicate results. Prerequisite: Completion of AP Biology (OB010) during the previous academic year

## Advanced Topics in Biological Research (OB011) Year course, 5 units

Advanced Topics in Biological Research is a year-long seminar course that explores a variety of biological concepts in depth through discussion of scientific research. Topics are chosen from the breadth of the discipline and build on the foundation of knowledge acquired in AP Biology (OB010). Students study molecular and cell biology, genetics, plant biology, medicine, evolution, and ecology by reading both current and seminal research publications and discussing these works as a group. Not only do students gain an appreciation of relevant research topics in modern biology, but they also learn about valuable research tools and the skills necessary to understand the frontiers of the science. Prerequisite: AP Biology (OB010) or consent of instructor

## Advanced Topics in Biological Research: Writing Option (OB012) <br> Year course, 10 units

Advanced Topics in Biological Research: Writing Option is a companion course to OB011. Students choosing the Writing Option will be engaged in the discussions of OB011 and additionally discuss the forms and styles of science writing including primary research publications, reviews, and science journalism. Students will apply their knowledge of these forms by composing a review article or significant research paper on the modern biological research topic of their choosing. Throughout the writing process, students will learn the skills necessary to independently and deeply explore scientific research literature and the process of writing, editing, and reviewing a lengthy written piece including peer-evaluation. Prerequisite: AP Biology (OB010) or consent of instructor

## The Study of the Mind: Psychology, Neuroscience, and Philosophy (OPS10) Year course, 10 units

In this course, we will study the mind and human behavior by exploring the insights that have emerged in the intersecting fields of neuroscience, psychology, and philosophy. We will draw on texts such as Pinker's The Language Instinct, Kahneman's Thinking Fast and Slow, Wilson's Strangers to Ourselves, and Sacks's The Man who Mistook his Wife for a Hat, to examine language and mind, reasoning and biases, the unconscious, and abnormal psychology. Topics may include Freudian psychoanalysis, the neurobiology underlying emotion, and animal cognition, as well as topics to be determined by student interests. While not designed to strictly follow the AP Psychology curriculum, this course will provide a conceptual foundation for students who are interested in preparing independently for the AP Psychology exam. Prerequisite: Methodology of Science - Biology (OMSB9) or high-school biology and Modes of Writing and Argumentation (OEO11) or equivalent

## Honors Physics (OP005)

## Year course, 10 units, Lab science

Honors Physics is a year-long seminar-style course that introduces the fundamental language, ideas and tools used in the study of physics. This advanced introductory high school physics course covers key topics such as kinematics (displacement, velocity, acceleration, vectors), dynamics (inertia, momentum, force, Newton's laws, kinetic and potential energy), wave phenomena, electric fields and forces, magnetism, and sound. Emphasis will be placed on introducing and developing those concepts, skills, and methods necessary to excel in physics, thus providing the foundation for more advanced study of physics. Through both at-home and virtual lab work, students learn useful experimental techniques, gain the ability to formulate experimental questions, design scientific experiments, effectively articulate scientific findings, and strengthen understanding of course material. Upon completion, students will have a solid foundation in physics and will be prepared for AP Physics C contingent on preparation in mathematics. Prerequisite: Middle-school or high-school science course; Corequisite: Honors Intermediate Algebra (OM012) or equivalent

Related course: Students also have the option of doing additional laboratory work during Summer @ Stanford (see OPL50 - Physics Lab).

## AP Physics C: Mechanics (OP051) Semester course, 5 units, Lab science, Fall only

AP Physics C: Mechanics is a semester-long calculus-based physics course designed to be equivalent to an introductory university-level physics course when taken in conjunction with AP Physics C: Electricity and Magnetism (OP053). In this course, students explore mechanics, including study of kinematics, force, circular motion, momentum, energy, rotation, gravitation, and simple harmonic oscillation. By completing lab work (a combination of at-home labs and virtual labs), students reinforce their understanding of concepts, gain hands-on experimentation experience, and develop their written communication skills. This course prepares students for the AP Physics C Mechanics exam, though the scope of the course is not limited exclusively to the AP curriculum. Prior completion of AP Cal-
culus BC is advantageous but not required. Prerequisite: Honors Physics (OP005) or equivalent or passing score on AP Physics placement exam; Corequisite: AP Calculus BC (OM4BC) or equivalent

Related course: Students also have the option of doing additional laboratory work during Summer @ Stanford (see OPL50 - Physics Lab).

## AP Physics C: Electricity and Magnetism (OP053) Semester course, 5 units, Lab science, Spring only

AP Physics C: Electricity and Magnetism is a semester-long cal-culus-based physics course designed to be equivalent to an introductory university-level physics course when taken in conjunction with AP Physics C: Mechanics (OP051). In this course, the main focus is on electricity and magnetism, including exploration of electrostatic force, electric fields, electric potential, simple circuits, magnetic fields, induction, and EM Waves. By completing lab work (a combination of at-home labs and virtual labs), students reinforce their understanding of concepts, gain hands-on experimentation experience, and develop their written communication skills. This course prepares students for the AP Physics C: Electricity and Magnetism exam, though the scope of the course is not limited exclusively to the AP curriculum. Prior completion of AP Calculus BC is advantageous but not required. Prerequisite: AP Physics C Mechanics (OP051) or equivalent, Corequisite: AP Calculus BC (OM4BC), Calculus C (OM42C) or equivalent.

Related course: Students also have the option of doing additional laboratory work during Summer @ Stanford (see OPL50 - Physics Lab).

## Physics Lab (OPL50) <br> Summer course, 2 units

Physics Lab is a residential summer course held on campus during Summer @ Stanford that allows students to explore physics topics through hands-on experimentation in a lab class setting. Experiments correspond with topics covered in Honors Physics (OP005), AP Physics C: Mechanics (OP051) and AP Physics C: Electricity and Magnetism (OP053), and experiments will be scaffolded according to students' depth of understanding. Students gain a variety of skills needed in a research lab, including experience with modern tools and techniques and effective communication of results. Prerequisite: Completion of Honors Physics (OP005) or AP Physics C: Mechanics (OP051) and AP Physics C: Electricity and Magnetism (OP053) during the previous academic year

## Health (OB001)

## Semester course, Fall/Spring

The Stanford OHS Health and Wellness course is a self-paced course for students without a previous health class or AP Biology at Stanford OHS. In this course, students gain the knowledge and skills necessary to maintain a long and healthy life by identifying and avoiding dangerous environments and risky behavior and by preventing common communicable and
chronic diseases. Students also gain an appreciation for how the body and mind work and learn about the changes to be expected in the future. Finally, students learn about the role individuals play in public health and maintaining the health of a community. Using the course workbook as a guide, the course can be completed in less than a semester. This course fulfills the non-academic Health Stanford OHS graduation requirement and does not receive a letter grade.

## University Level

Light and Heat (UP055)
Semester course, 5 units, Directed study, Fall only
Light and Heat is a directed study course that the student completes at his or her own pace, but is designed to be completed within one semester. The course is an introduction to university-level optics and thermodynamics. Topics include temperature, properties of matter, introduction to the kinetic theory of matter, light and electromagnetic waves, reflection and refraction of light, lens systems, interference, and diffraction. Prerequisite: AP Physics C: Electricity and Magnetism (OP053) and consent of the instructor

## OTHER COURSES

## COURSE DESCRIPTION

## High School

## OHS Physical Education (OHSPE)

## Semester Course, No academic credit, Fall and Spring

The OHS PE program provides the framework for a community focus on physical activity and holistic health. Through OHS PE, students pursue positive, healthy lifestyles that fit their unique interests and needs. Our diverse and passionate community exposes students to new activities and provides support to students as they set and work toward their goals. While enrolled in Stanford OHS PE, students pursue their physical activity independently and submit a contract and regular log of their activity on a monthly basis. Other components of the program include goal setting and written reflections.

Modern Physics (UP070)
Semester course, 5 units, Directed study, Spring only
Modern Physics is a directed study course that the student completes at his or her own pace, but is designed to be completed within one semester. The course is an introduction to the ideas of modern physics. Topics include key concepts in special and general relativity, quantum mechanics, nuclear physics, high-energy particle physics, and cosmology. Prerequisite: Light and Heat (UP055) and consent of instructor

Intermediate Mechanics I \& II (UP110, UP111)
Two Semester courses, 5 units each, Directed study
Intermediate Mechanics I \& II are two directed study courses taken in sequence that the student completes at his or her own pace, but is designed to be completed within one semester each. Together, the courses provide a thorough exploration of the mechanics of systems of particles and rigid bodies. Topics include coordinate transformation and vectors, Newtonian mechanics, linear and nonlinear oscillations, Hamilton's principle, Lagrangian and Hamiltonian dynamics, non-inertial reference systems, rigid-body dynamics, coupled oscillations, and introductory fluid mechanics. Prerequisite: Modern Physics (UP070) and Differential Equations (UM53A) or equivalent and consent of instructor

## THE MALONE SCHOOLS ONLINE NETWORK (MSON)

The Malone Schools Online Network is a collaboration among top independent schools that have all been supported by the Malone Family Foundation, which endowed the Stanford Online High School with its founding grant and supports the Malone Scholars Program at Stanford OHS.

MSON provides upper level students at registered Malone Schools with a variety of superior online courses offered in an online classroom that enhances each member school's existing curriculum. These courses promote the values of the Malone Family Foundation, use the Stanford OHS Virtual Seminar model, and are taught by teachers from Stanford OHS and other Malone Schools in the Network. These teachers are experts in their fields, have experience with independent school education, and share a commitment to excellence, small class sizes, and personal relationships. Course offerings target the most talented high school students at member schools. These students demonstrate sufficient independence and commitment to succeed in a virtual discussion seminar setting.

Each course takes a blended approach, combining real-time video conferencing seminars with asynchronous instruction, recorded lectures, and exercises students complete outside of the class.

MSON courses count toward Stanford OHS residency and academic course requirements. These courses appear on Stanford OHS students' transcripts.

The full listing of MSON courses for the next academic year will be made available to students in the Spring, and students will request to enroll in MSON courses through the normal Stanford OHS enrollment process. Among the courses on offer for 2016-17 are Ancient Greek, Arabic I and II; Chinese V; The American Food System; Diversity in Global Comparative Perspective; Etymology of Scientific Terms; Medical Ethics; Music History: History of Rock and Roll; Fundamentals of Nuclear Science; Genetics and Genomics; Introduction to Organic Chemistry; Advanced Topics in Chemistry; and Health Physics and Nuclear Technology.

The full catalog of MSON courses for 2016-17 is available here.

## SAMPLE COURSES OF STUDY

Below are examples of courses of study for sample Stanford OHS students. These course plans are designed to show you a few of the many paths Stanford OHS students might pursue to earn their diploma-graduating students will work closely with their Academic Advisor to craft an individualized plan that best reflects their interests and academic goals.

## JAKE'S PLAN-BROAD FOUNDATION 1

| GRADE | CORE | ENGLISH | HISTORY/ HUMANITIES | LANGUAGE | MATH | SCIENCE | OTHER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $9^{\text {TH }}$ | Methodology of Science - Biology (OMSB9) | Textual Analysis and Argumentation (OE010) |  | Chinese 1 (OCH11) | Honors Beginning Algebra (OM011) | Honors <br> Environmental <br> Science (OS005) |  |
| $10^{\text {TH }}$ | History and Philosophy of Science (OHSCO) | Modes of Writing and Argumentation (OE011) | [see OHSCO] | Chinese 2 (OCH12) | Honors Intermediate Algebra (OM012) | Honors Chemistry (OC005) |  |
| $11^{\text {TH }}$ | Democracy, Freedom and the Rule of Law (ODFRL) | AP Language and Composition (OE020) | [see ODFRL] | Chinese 3 (OCH13) | Honors Geometry (OM015) | AP Biology (OB010) |  |
| $12^{\text {TH }}$ | Critical Reading and Argumentation (OCRA1) | Advanced Topics in Literature (OE025/26-half credit option) | AP US History (OH011) | AP Chinese (OCH03) | Honors Precalculus with Trigonometry (OM013) |  | Upper Level Course* |

* Possibilities include, but are not limited to, AP Music Theory (OMT01), The Study of the Mind: Psychology, Neuroscience, and Philosophy (OPS10), Globalization and Imperial Exchange (OH010A), Advanced Topics in Philosophy (OPHI27/28)


## MAYA'S PLAN-OHS MIDDLE SCHOOL/BROAD FOUNDATION 2

| GRADE | CORE | ENGLISH | HISTORY/ HUMANITIES | LANGUAGE | MATH | SCIENCE | OTHER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7^{\text {TH }}$ |  | Fundamentals of Expository Writing (JE001) | Introduction to US History (JH001) | Latin 1A (JLA1A) | Honors Beginning Algebra (OM011) | Inquiry-Based Physics (JP001) |  |
| $8^{\text {TH }}$ |  | Fundamentals of Literary Analysis (JE002) | Empires and World Civilizations to 1800 (JH002) | Latin1B (JLA1B) | Honors Intermediate Algebra (OM012) | Foundations of Science: Energy and Matter (JSO02) |  |
| $9^{\text {TH }}$ | Methodology of Science - Biology (OMSB9) | Textual Analysis and Argumentation (OE010) | Revolutions and Rebellions (OH005) | Latin 2 (OLA12) | Honors Geometry (OM015) | [see OMSB9] |  |
| $10^{\text {TH }}$ | History and Philosophy of Science (OHSCO) | Modes of Writing and Argumentation (OE011) | [see OHSC0] | Latin 3 (OLA13) | Honors Precalculus with Trigonometry (OM013) | Honors Physics (OP005) |  |
| $11^{\text {TH }}$ | Democracy, <br> Freedom, and the Rule of Law (ODFRL) | AP English Language and Composition (OE020) | $\begin{aligned} & \text { AP US History } \\ & \text { (OHO11) } \end{aligned}$ |  | AP Calculus AB (OM4AB) | AP Chemistry (OC010) with summer bootcamp |  |
| $12^{\text {TH }}$ | Critical Reading and Argumentation (OCRA1) | AP English Literature and Composition (OE021), or Advanced Topics in Literature (OE027/28) | Globalization and Imperial Exchange (OH010A), or Advanced History Research Seminar (OH032) |  | AP Statistics (OM060), or AP Calculus C (OM42C) and Logic in Action (UM157) | AP Biology (0B010) |  |

## HECTOR'S PLAN-MATH/SCIENCE FOCUS

| GRADE | CORE | ENGLISH | HISTORY/ HUMANITIES | LANGUAGE | MATH | SCIENCE | OTHER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $9^{\text {TH }}$ | Methodology of Science - Biology (OMSB9) | Literary Analysis and Argumentation (OE009) |  | Spanish 1 (OSP11) | Honors Geometry (OM015) | Honors Chemistry (OC005) |  |
| $10^{\text {TH }}$ | History and Philosophy of Science (OHSCO) | Textual Analysis and Argumentation (OE010) | [see OHSC0] | Spanish 2 (OSP12) | Honors Precalculus with Trigonometry (OM013) | AP Biology (OB010) |  |
| $11^{\text {TH }}$ | Democracy, <br> Freedom, and the Rule of Law (ODFRL) | Modes of Writing and Argumentation (OE011) | AP US History (OH011) |  | AP Calculus BC (OM4BC) | AP Physics C (OP051/53) with summer bootcamp |  |
| $12^{\text {TH }}$ | Critical Reading and Argumentation (OCRA1) | AP English Language and Composition (OE020) | [see DFRL] |  | Multivariable <br> Calculus (UM52A/B) | Advanced Topics in Biological Research (with writing option, OB012) | Upper Level Course* |

* Possibilities include, but are not limited to, Economics (OEC10, OEC15), AP Computer Science (OCS15), Study of Mind (OPS10)


## SMITA'S PLAN—ADVANCED MATH FOCUS

| GRADE | CORE | ENGLISH | HISTORY/ HUMANITIES | LANGUAGE | MATH | SCIENCE | OTHER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7^{\text {TH }}$ |  | Fundamentals of Expository Writing (JE001) | Introduction to US History (JH001) |  | Honors Intermediate Algebra (OM012) | Inquiry-Based Physics (JP001) |  |
| $8^{\text {TH }}$ |  | Fundamentals of Literary Analysis (JE002) | Empires and World Civilizations to 1800 (JH002) |  | Honors Geometry (OM015) | Honors Environmental Science (OS005) | Programming in C : Techniques and Algorithms (OCS10) |
| $9^{\text {TH }}$ | Methodology of Science - Biology (OMSB9) | Textual Analysis and Argumentation (OE010) |  |  | Honors Precalculus with Trigonometry (OM013) | Honors Chemistry (OC005) | AP Computer Science (OCS15) |
| $10^{\text {TH }}$ | History and Philosophy of Science (OHSCO) | Modes of Writing and Argumentation (OE011) | [see OHSC0] | Chinese 1 (OCH11) | AP Calculus BC (OM4BC) | AP Biology (OB010) |  |
| $11^{\text {TH }}$ | Democracy, <br> Freedom, and the <br> Rule of Law (ODFRL) | AP English Language \& Composition (OE020) | [see ODFRL] | Chinese 2 (OCH12) | Multivariable Calculus (UM52A/B) | AP Physics C (OP051/53) with summer bootcamp |  |
| $12^{\text {TH }}$ | Critical Reading and Argumentation (OCRA1) | Spring: Advanced Topics in Literature II (OE026-half credit option) | AP US History (OH011) | Chinese 3 (OCH13) | Fall: Linear Algebra (UM51A)/Spring: Differential Equations (UM53A) |  | Upper Level Course* |

[^0]JIN'S PLAN-HUMANITIES FOCUS

| GRADE | CORE | ENGLISH | HISTORY/ HUMANITIES | LANGUAGE | MATH | SCIENCE | OTHER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7^{\text {TH }}$ |  | Fundamentals of Expository Writing (JE001) | Introduction to US History (JH001) |  | Honors Prealgebra (JM007) | Inquiry-Based Physics (JP001) |  |
| $8^{\text {TH }}$ | Human Nature and Society (JHSN2) | Fundamentals of Literary Analysis (JE002) | Empires and World Civilizations to 1800 (JH002) |  | Honors Beginning Algebra (OM011) | Foundations in Science: Energy and Matter (JS002) |  |
| $9^{\text {TH }}$ | Methodology of Science - Biology (OMSB9) | Textual Analysis and Argumentation (OE010) | Revolutions and Rebellions (OH005) |  | Honors Intermediate Algebra (OM012) | Honors Chemistry (OC005) |  |
| $10^{\text {TH }}$ | History and Philosophy of Science (OHSCO) | Modes of Writing and Argumentation (OE011) | AP US History (OH011) | Spanish 1 (OSP11) | Honors Geometry (OM015) |  |  |
| $11^{\text {TH }}$ | Democracy, <br> Freedom, and the Rule of Law (ODFRL) | AP English Literature and Composition (OE021) |  | Spanish 2 (OSP12) | Honors Precalculus with Trigonometry (OM013) | AP Biology (OB010) |  |
| $12^{\text {TH }}$ | Critical Reading and Argumentation (OCRA1) | Fall: Making Moby Dick (UE030)/ Spring: Modernist Literature and Photography (UE031) | [see Other] | Spanish 3 (OSP13) | AP Calculus AB (OM4AB) |  | Advanced History Research Seminar (OH032) <br> or Honors Physics (OP005) |

## GRADUATION REQUIREMENTS

## STANFORD OHS GRADUATION REQUIREMENTS

In establishing its graduation requirements, Stanford Online High School has sought to strike a balance between providing a wellrounded education and ensuring that students have adequate time to study subjects in depth, including being able to move beyond traditional high-school-level courses into those at the university level. For these reasons the school has established a comprehensive set of graduation requirements and has also provided students with a variety of ways in which these requirements can be satisfied.

Students planning to graduate from Stanford OHS must maintain an approved academic plan with their Academic Advisors leading to the satisfaction of the graduation requirements outlined below.

Students who had not previously planned to graduate from Stanford OHS, and therefore have not maintained an academic plan for graduation, but have now decided to do so, must petition the Graduation Committee, through the counsel of their Academic Advisors.

The Graduation Committee oversees any exceptions or petitions regarding these requirements.

## ACADEMIC COURSE REQUIREMENTS (COURSES TAKEN IN GRADE 9-12 AT STANFORD OHS OR ELSEWHERE)

In total, students will take an equivalent of 20 full-year courses, or 200 units, to fulfill their graduation requirements, including

- English - 4 years (40 units)
- Math -4 years (40 units)
- Natural Sciences - 3 years (30 units, must include at least 2 years of laboratory science)
- Social Sciences - 3 years (30 units, must include 1 year of US History—see below)
- Foreign Language - 2 years of the same language (20 units, 3 or more years are strongly recommended)
- Additional Academic Coursework - 4 years (40 units, may include courses from areas other than those noted above and/or additional courses from those listed here-see below)


## CORE COURSE SEQUENCE REQUIREMENT

In order to ensure that students at Stanford OHS participate fully in the intellectual life of the school, we require all diploma-seeking high-school students to take a Core course during each year they are enrolled. Although these philosophy-based courses do not fit easily into standard categories, Core courses count for Natural Science, Social Science, or English credit as indicated. The Core comprises an ordered sequence taken as follows:

- Methodology of Science - Biology (Natural Science)
- History and Philosophy of Science (Social Science)
- Democracy, Freedom, and the Rule of Law (Social Science)
- Critical Reading and Argumentation (English)

The middle-school Core course, Human Nature and Society (JHNS2), is not required for middle-school commencement nor for highschool graduation. It does not count toward the Core Course Sequence requirement. Advanced Topics courses in Philosophy do not count toward the Core Course Sequence requirement.

## ADVANCED COURSEWORK DISTRIBUTION REQUIREMENT

Students must take a minimum of one year-long (10 units) Stanford OHS course at or above the Advanced Placement (AP) level in each of the following subject areas: Humanities (English), Social Sciences, and Natural Science/Mathematics (either subject).

## NON-ACADEMIC COURSE REQUIREMENTS (NOT INCLUDED IN GPA CALCULATION)

- Physical Education - 2 years
- Health - 1 semester

Stanford OHS offers a Physical Education program to fulfill the PE requirement. While enrolled in Stanford OHS PE, students pursue their physical activity independently and submit a contract and regular log of their activity on a monthly basis. Other components of the program include goal setting, written reflection, and guest speakers. Students who are engaged in PE courses at a brick and mortar school or extensive work with a coach or formal program can petition for PE Credit through our transfer credit process. Stanford OHS requires that students complete a minimum of 4 semesters of physical education during high school in order to be eligible for graduation.

The Health requirement can be met by taking the Stanford OHS AP Biology class, or the directed-study course, Health (OB001). Health classes taken at other schools may also satisfy this requirement. However, the Stanford OHS health course has specific content requirements mandated by California state law. Therefore, please consult with an Academic Advisor to determine whether the health course you have taken outside of Stanford OHS qualifies for transfer credit.

## STANFORD OHS "RESIDENCY" REQUIREMENTS

(FOR ANY STUDENT ENROLLED AT STANFORD OHS AT THE HIGH-SCHOOL LEVEL BEGINNING IN THE 2013-14 SCHOOL YEAR)
To earn a Stanford OHS diploma, students must be enrolled full-time in their final two years of high school. In addition, they must take a minimum number of Stanford OHS courses as follows:

- Students entering in 11th grade will, by virtue of their full-time enrollment, receive credit for a minimum of 8 Stanford OHS classes (80 units) over the course of two years (including DFRL, and CRA)
- Students entering in 10th grade must, over the course of three years, receive credit for a minimum of 11 Stanford OHS classes (110 units, including all HSC, DFRL, and CRA)
- Students entering in 9th grade must, over the course of four years, receive credit for a minimum of 14 Stanford OHS classes (140 units, including all four Core courses at the high school level)


## PREVIOUS STANFORD OHS "RESIDENCY" REQUIREMENTS

(FOR ANY STUDENT ENROLLED AT STANFORD OHS AT THE HIGH-SCHOOL LEVEL PRIOR TO THE 2013-14 SCHOOL YEAR)
To earn a Stanford OHS diploma, students must take a minimum number of Stanford OHS courses as follows:

- Incoming seniors - 5 Stanford OHS classes (50 units, including Core: DFRL)
- Incoming juniors - 8 Stanford OHS classes (80 units, including Core: DFRL \& CRA)
- Incoming sophomores - 11 Stanford OHS classes (110 units, including Core: HSC, DFRL, \& CRA)
- Incoming freshmen - 14 Stanford OHS classes (140 units, including all four Core courses)
(Applies to students entering the 9th grade beginning in 2011-12.)


## STATE OF CALIFORNIA REQUIREMENTS

Because Stanford OHS is accredited as a California high school, we must abide by California requirements for physical education, health education, and U.S. History. Therefore, all Stanford OHS graduates must complete two years of Physical Education, one semester of health, and one full year of U.S. History at Stanford OHS or elsewhere in order to receive the Stanford OHS diploma. How students can meet these requirements is detailed in the preceding section.

## TRANSFER OF CREDIT \& COURSES TAKEN AT OTHER INSTITUTIONS

Stanford OHS prepares students for success in their future intellectual pursuits within a flexible yet academically rigorous environment. For students who have indicated an intent to graduate from Stanford OHS, we evaluate coursework from other institutions or homeschool programs to ensure that they meet Stanford OHS diploma requirements.

High-school-level courses will be evaluated for credit approval by the Academic Advisors upon receipt of a completed Credit Transfer Petition form and an official transcript. The Credit Transfer petition forms can be found on the Gateway site.

The review of transfer credits completed at non-accredited schools or programs, through a homeschool program, enrichment programs, and any courses without direct parallels at Stanford OHS are likely to require additional information beyond the transcript and Credit Petition. In these cases, the Academic Advisor may request one or more of the following:

- Program contact information, including accreditation (if available)
- Grade level of the course and name of instructor
- Dates of enrollment
- Course syllabus, including reading assignments
- Description of major assignments, labs, and major assessments such as exams and papers
- Grading rubric with student's grade
- Test scores for related AP exam or SAT subject test.

High-school students who intend to take a course at another institution to satisfy a Stanford OHS graduation requirement are encouraged to obtain approval from their Academic Advisor prior to taking the course. A Credit Transfer Petition is required for all such requests. Additional details on the Credit Transfer Petition requirements are articulated on the forms located on the Gateway site.


[^0]:    * Possibilities include, but are not limited to Data Structures (OCS25), Economics (OEC10, OEC15), University-Level Physics (UP055 and UP070), Study of Mind (OPS10)

