



EPGY Online High School Academic Program

The centerpiece of the EPGY OHS curriculum is a thoughtful program of advanced academic study that provides for and motivates students to individualized achievement. A combination of self-paced and fixed-schedule courses of innovative scope and design in the natural sciences, humanities, and social sciences, including numerous college-level offerings, challenges variously talented students to study material in greater depth and rigor, more closely approximating how the subjects are studied in university. Live discussion sections, held in a robust video-conferencing environment, additionally draw on the university model to promote active and responsible engagement with the material and refinement of communicative and argumentative skills.

All of our courses offer both instruction and assessment that engenders a mastery of fundamental principles of reasoning across and within different disciplines. The unique Core program at EPGY OHS distills and extends this curriculum-wide study of the strategies and norms of reasoning and argumentation, formally treating these strategies in the disciplines of biology and statistics, history of science, political theory, and philosophy. This four-year sequence, which students are required to take in each of their high school years, additionally serves to provide a common experience and reference for students moving through the curriculum in distinctive ways particular to their own talents and interests.

The core values and components of the EPGY Online High School academic program extend to the middle school grades. Students who enroll in the middle school grades engage in courses specially designed to lay the intellectual foundation for more advanced coursework by cultivating the critical reasoning, analytical, and communication skills necessary for academic achievement. The learning experience of our middle school students is enriched by a distinctive approach to material, which includes interdisciplinary English and History courses and inquiry-based physics. Our academic program also allows middle school students to accelerate in areas of special talent by providing full access to course offerings in these subjects.

The individualized and flexible nature of the EPGY OHS academic program is designed to allow maximum acceleration and achievement in the context of a complete course of study, and thus extends to the variety of enrollment opportunities offered at EPGY OHS. The OHS diploma is available both to full-time students and to part-time students who choose to supplement their education with the advanced and unique offerings at OHS as part of a comprehensive and challenging program. A flexible and individualized credit program enables students to enter the OHS at any point in their careers, and to enter the curriculum in a way that maximizes their ability to focus their efforts on development of their talents and interests.

Courses

The following tables list the courses that are currently offered at the EPGY Online High School (EPGY OHS). The first shows courses at the high school level while the second shows courses at the university level. All courses are one year in length unless otherwise noted. Some courses may be taken in a self-paced, directed-study format.

Department	Course Title	Course Code	Units
Humanities	Fundamentals of Expository Writing	JE007	10
	History & Literature: Gilgamesh to Shakespeare	JE008	10
	Honors English: Textual Analysis and Argumentation	OE010	10
	Honors English: Modes of Writing and Argumentation	OE011	10
	AP English Language and Composition	OE020	10
	AP English Literature and Composition	OE021	10
	Grammar and Style of the Sentence (1 semester)	OEG20	5
	Core: Critical Reading and Argumentation	OCRA1	10
	Introductory Chinese – Part A	OCH1A	5
	Introductory Chinese – Part B	OCH1B	5
	Introductory Chinese	OCH01	10
	Intermediate Chinese	OCH02	10
	AP Chinese	OCH03	10
	Introductory Latin – Part A	OLA1A	5
	Introductory Latin – Part B	OLA1B	5
	Introductory Latin	OLA01	10
	Intermediate Latin	OLA02	10
	AP Latin	OLA03	10
	Introduction to Music Theory (1 semester)	OU001	5
	AP Music Theory	OMT01	10
	Advanced Study Skills (Summer)	OSS01	1
	Writing Styles (Summer)	OEWS20	1
	Public Speaking (Summer)	OEPS1	1
	Natural Sciences	Honors Beginning Algebra	OM011
Honors Intermediate Algebra		OM012	10
Honors Geometry		OM015	10
Honors Precalculus with Trigonometry		OM013	10
AP Calculus AB		OM040, OM041	10
AP Calculus BC		OM040, OM041, OM042	15
Inquiry-based Physics		JP007	10
Inquiry-based Physics Lab		JPL07	2
AP Physics B		OP010	10
AP Physics C: Mechanics		OP051	5
AP Physics C: Electricity and Magnetism		OP053	5
AP Physics Lab (Summer)		OPL10	2
Honors Chemistry		OC005	10
Honors Chemistry Lab (Summer)		OCL05	2
AP Chemistry		OC010	10
AP Chemistry Lab (Summer)		OCL10	2
Health		OB005	5
AP Biology		OB010	10
AP Biology Lab (Summer)		OBL10	2
Introduction to C Programming		OC11A	3.33
C Programming – Algorithms and Techniques	OC11B	3.33	
Advanced Topics in C Programming	OC11C	3.34	

	Introduction to Java Programming (1 semester)	OC015	5
	AP Computer Science	OCS01	10
Social Sciences	Introduction to US History and Geography	JH007	10
	History & Literature: World Civilizations to 1600	JH008	10
	AP World History	OH010	10
	AP US History	OH011	10
	Core: Methodology of Science - Biology	OMSB9	10
	Core: Democracy, Freedom & Rule of Law	ODFRL	10
	Core: History of Science: Great Ideas, Observations, and Experiments	OHSC0	10
	International and Global History I	OH030	5
	International and Global History II	OH031	5
	Social Science Research Methods I (Summer)	OH020	2
	Social Science Research Methods II (Summer)	OH021	2
	Leadership Seminar I (Summer)	OL001	1
	Leadership Seminar II (Summer)	OL002	1
	Leadership Seminar III (Summer)	OL003	1

University-level Courses

Currently, the EPGY OHS offers seventeen university-level mathematics and physics courses. Students who successfully complete these courses will be eligible to receive transcripts from the Stanford University Continuing Studies Program as well as from the EPGY OHS.

Department	Course Title	Course Code	Units
English	Making Moby Dick	UE030	4
	20 th Century Genre Theory and Practice	UE031	4
Mathematics	Linear Algebra	UM51A	4
	Multivariable Differential Calculus	UM52A	4
	Multivariable Integral Calculus	UM52B	3
	Differential Equations	UM53A	4
	Complex Analysis	UM106	3
	Modern Algebra	UM109	3
	Real Analysis	UM115	3
	Partial Differential Equations	UM131	3
	Number Theory	UM152	3
	Mathematical Logic	UM157	4
Physics	Light and Heat	UP055	4
	Modern Physics	UP070	3
	Intermediate Mechanics I	UP110	4
	Intermediate Mechanics II	UP111	4
	Intermediate Electricity and Magnetism I	UP120	4
	Intermediate Electricity and Magnetism II	UP121	4
	Quantum Mechanics	UP130	4
Economics	Economics	UEC20	4

Sample Student Courses of Study

Five classes per term is considered a full-time course load at the EPGY OHS, although students may occasionally take more than five courses. The following examples show courses of study that a full-time student at EPGY OHS might pursue. The first chart shows courses that might be selected by students interested in advanced work in the Natural Sciences, while the second shows selections for advanced work in the Humanities and Social Sciences.

A sample full-time course of study with advanced work in the Natural Sciences:

	Natural Sciences	Social Sciences	Humanities
Grade 7	-Honors Algebra I -Inquiry-based Physics	-Introduction to US History and Geography	-Fundamentals of Expository Writing -Chinese I – Part A
Grade 8	-Honors Algebra II & Honors Geometry -AP Physics B	- History & Literature: World Civilizations to 1600	- History & Literature: Gilgamesh to Shakespeare -Chinese I – Part B
Grade 9	-Honors Precalculus -AP Chemistry	-Core: The Methodology of Science, Biology	-Honors English: Textual Analysis & Argumentation -Chinese II
Grade 10	-AP Calculus -AP Biology	-Core: The History of Science: Great Ideas, Observations, and Experiments	-AP Chinese -Honors English: Modes of Writing & Argumentation
Grade 11	-UM52A/UM52B -AP Physics C -Introduction to C/Java	-Core: Democracy, Freedom & Rule of Law	-AP English Language & Composition
Grade 12	-UM51A/UM53A -UP055/UP070 -AP Computer Science	-AP US History	-Core: Critical Reading & Argumentation

A sample full-time course of study with advanced work in the Humanities and Social Sciences:

	Natural Sciences	Social Sciences	Humanities
Grade 7	-Honors Prealgebra -Inquiry-based Physics	- Introduction to US History and Geography	- Fundamentals of Expository Writing -Latin I – Part A
Grade 8	-Honors Algebra I	- History & Literature: World Civilizations to 1600	- H&L: Gilgamesh to Shakespeare -Textual Analysis & Argumentation -Latin I – Part B
Grade 9	-Honors Algebra II	-Core: Methodology of Science, Biology -AP World History	-Honors English: Modes of Writing & Argumentation -Latin II
Grade 10	-Honors Geometry -Honors Chemistry	-Core: History of Science: Great Ideas, Observations, and Experiments	-AP English Language and Composition -AP Latin
Grade 11	-Honors Precalculus -AP Biology	-AP US History -Core: Democracy, Freedom & Rule of Law	-AP English Literature & Composition
Grade 12	-AP Calculus -AP Physics B	-Economics	-Core: Critical Reading & Argumentation -UE030/UE031

EPGY OHS Core Courses

The Core Sequence is a unique and central component of the EPGY OHS academic program that embodies the tenets of our mission. All students pursuing the EPGY OHS diploma take this sequence of year-long seminar-style courses each year they are enrolled in the high school. Sequencing depends on the student's year of entry. In Core courses, the subject matters of 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 Core courses provide a unique opportunity for EPGY OHS students to pursue in-depth study of topics that often are not taught at the pre-college level.

Methodology of Science – Biology. 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 of Science: Great Ideas, Observations, and Experiments. This two-semester course sequence examines the great ideas and great observations and experiments that have shaped the development of science. Using a 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.

Democracy, Freedom, and the Rule of Law. Students critically examine the foundations of civil society, the importance of democratic institutions, and the rule of law. Readings for the course include writings by David Hume, John Locke, Thomas Hobbes, Edmund Burke, John Stuart Mill, John Dewey, and F. A. Hayek. The course also provides students with an overview of the structure of the United States Government.

Critical Reading and Argumentation. Through extensive reading, writing, and discussion, students develop the intellectual tools and argumentative strategies derived from the practice of philosophy. The readings lead to discussion of some of the more abstract characteristics and assumptions of arguments in the disciplines of science, religion, and philosophy itself. Students will learn to apply strategies to both academic and informal inquiry.

Advanced Placement Courses

Beyond merely preparing students to take Advanced Placement examinations, EPGY OHS courses are designed to challenge the most gifted high-school-age students and prepare them for future study in college. In many cases, the actual course content may be at a greater depth than that of typical AP courses, and, where appropriate, courses include enhanced mathematical content or an intensive focus on writing, discussion, and argumentation.

EPGY OHS Summer Program

The EPGY OHS residential summer programs at Stanford University is intended to enrolled and incoming EPGY OHS students. Participation in these residential summer programs plays an important role in the EPGY OHS education, particularly for students who attend full time. The summer program provides OHS students the opportunity for face-to-face interaction with fellow students, instructors, and administrators, as well as opportunity for lab work in science courses. For incoming students, the summer orientation component enhances their ability to succeed socially and academically during the school year. Although participation in the summer program is strongly encouraged, it is not required. Limited financial aid is available for summer sessions.

Some Distinguishing Features of EPGY OHS Courses

The online environment is only one distinguishing characteristic of EPGY OHS courses. Other features that make EPGY OHS ideally suited for its target population of gifted students include:

Enhanced mathematical content. Where appropriate, courses in the natural sciences and the mathematical social sciences have enhanced mathematical content. Students study material in greater depth, more closely approximating how these subjects are studied in the university.

Emphasis on writing, discussion, and argumentation. In seminar-style courses there is an emphasis on fostering in the students the ability to read critically and write forcefully and persuasively. These themes, developed in depth in EPGY OHS English and Core courses, are incorporated throughout the curriculum.

College-style class schedule. While the typical high school student spends close to thirty hours per week in instructor-led classes, the average first-year college student spends between fifteen and twenty hours in class and much more time outside class studying in preparation. The seminar-style classes offered at EPGY OHS are closer in spirit to college courses in terms of their scheduling and the nature of their in-class discussions.

Self-paced, directed-study courses. Many gifted students are frustrated by having their progress limited by the abilities of the other students in the class. In courses that do not involve regular student-student interaction, EPGY OHS students may be allowed to proceed through the curriculum at an accelerated pace under the direction of an instructor.

Extracurricular Activities

Students in the EPGY OHS can participate in a number of activities beyond the classroom. Clubs are organized by students based on interest, and in the present academic year include: 3D Modeling, Art and Artisans, Asia Club, Christian Fellowship, Classic Films, Cross Cultural Club, Culinary Arts, Debate, Engineering, Extreme Communicators, History and Art of Law, Homeschool Club, Indian Students Association, Literary Journal, Math Club, Music Club, OHS Money Club, Review of Books, Science Club, the student newspaper, and student government. In previous years, clubs have included: Philosophy Club, Math Circle, Astrophysics Club, Investment Club, Service Club, and Mainlander Society. In addition to meeting within OHS, some clubs engage regional or national activities.

Enrollment Options

Fulltime

Students enrolled full-time take four or more courses. This enrollment option is for students who want their primary high school experience to be at the EPGY OHS.

Part-time

Students enrolled part-time can take up to three courses at EPGY OHS. The EPGY OHS expects that many students who are interested in the courses offered by EPGY OHS may wish to remain active at their local schools. To facilitate such arrangements, the EPGY OHS has established a joint-enrollment option. The most common type of joint enrollment accommodates students who wish to take half their courses at their local school and the other half from EPGY OHS.

Single Course

Students can apply for a single course in one of two ways. They can submit a full application in either the early, regular or late admission cycles, or they can apply using a separate Single Course Application starting in June. Students who are accepted in the early or regular admission cycles will be able to submit scheduling preferences prior to course scheduling.

Courses from Outside Institutions

An important feature of the EPGY OHS is its willingness to allow students to incorporate outside work into their course of study. Outside work may include courses taken at other institutions and some directed-study opportunities, such as research or academic internships. The EPGY OHS counseling department will evaluate the suitability of courses taken at other institutions based on a review of the course syllabus and the student's individual academic plan.

Graduation Requirements

Overview

In establishing its graduation requirements, EPGY OHS has tried to strike a balance between providing a well rounded education and ensuring that students have time to study subjects in depth, including being able to move beyond traditional high-school-level courses into those at the university level. We know that many of our students will be combining courses taken from EPGY OHS with courses taken from other institutions. For these reasons we have established a comprehensive set of graduation requirements and have also provided students with a variety of ways in which these requirements can be satisfied.

EPGY OHS Graduation Requirements

Academic Course Requirements (includes courses taken in Ninth Grade at EPGY OHS or elsewhere)

- English – 40 units
- Math – 40 units
- Natural Sciences – 30 units
- Social Sciences – 30 units (must include 10 units of US History)
- Foreign Language – 20 units
- Additional Academic Coursework – 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 – In order to ensure that students at the EPGY OHS participate fully in the intellectual life of the school, we require all diploma-seeking students to take the EPGY OHS Core during each of their high school years. Although these philosophy-based courses do not fit easily into standard categories, Core courses count for Social Science or English credit as indicated. The Core comprises a sequence normally taken as follows:

- Methodology of Science – Biology
- History of Science
- Democracy, Freedom, and the Rule of Law (all EPGY OHS graduates must take this course)
- Critical Reading and Argumentation

Advanced Placement Distribution Requirement – Students must take a minimum of one year-long Advanced Placement (AP) or university-level course from the EPGY OHS in each division (Humanities, Social Science, and Natural Science).

EPGY OHS “Residency” Requirement – To earn an EPGY OHS diploma, students must take a minimum number of EPGY OHS courses as follows:

- Incoming seniors – 5 EPGY OHS classes (including one Core class)
- Incoming juniors – 8 EPGY OHS classes (including two Core classes)
- Incoming sophomores – 11 EPGY OHS classes (including three Core classes)
- Incoming freshmen – 12 EPGY OHS classes (including four Core classes)

Non-academic Course Requirements (not used in GPA calculation)

- Physical Education – 2 years
- Health – 1 semester

The Physical Education requirement can be met by submitting official transcripts that include PE credits or by submitting an EPGY OHS PE independent study contract and completing specified physical activities. All contracts must be approved in advance by the Head Counselor. The EPGY OHS AP Biology class satisfies the Health requirement, or students may opt to take a directed study program and content exam through EPGY OHS to demonstrate mastery of key concepts. Health classes taken at other schools may also satisfy this requirement upon approval by the Head Counselor.