
University High School

Program of Studies 2018–2019



The Laboratory Schools Mission

The Laboratory Schools are home to the youngest members of the University of Chicago's academic community. We ignite and nurture an enduring spirit of scholarship, curiosity, creativity, and confidence. We value learning experientially, exhibiting kindness, and honoring diversity.

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This Program of Studies booklet describes the courses which will be offered in the High School during the 2018–2019 academic year. These selections represent an ongoing refinement of a curriculum which has been the subject of constant revision. We think it represents excellence today as older versions did before.

Before registering for courses each year, students should consult with their parents, teachers, advisors and counselors. A typical load in the High School ranges from four to seven classes per term. The recommended maximum load is seven classes, and the maximum allowable is eight. It is a requirement that every student be enrolled in a minimum of four classes at all times, none of which can be an Independent Study. Students should plan carefully in order to distribute their academic commitments evenly over four years, not overloading the first three years nor postponing many requirements to the senior year. Balancing all aspects of the high school program—academic classes, athletics, and extracurricular activities leads to a more rewarding high school experience.

In selecting courses, please also bear in mind the limitations imposed by the mechanics of scheduling and class size. Every effort will be made to accommodate the preferred schedule of each student, but it is important to have alternative choices in mind. This is particularly true for juniors and seniors who may be choosing among courses where only a single section is possible. The more single-section courses you select, the higher the probability that two or more of them will be in conflict with each other.

We also ask that you commit yourself to the schedule you submit, particularly in the area of electives. Staffing decisions are made based on the number of students who assert that they will enroll in a course if it is offered at the time of registration. The administration reserves the right to not run courses due to low enrollment or scheduling challenges.

Course selection should not be based on the projected personal "chemistry" between a student and teacher. Schedules will not be built on the basis of teacher assignment, which occurs after course registration.

Juniors and seniors are eligible to request enrollment in courses at The University of Chicago. If interested, please see the UChicago Courses form on Schoology and consult with the High School principal.

Graduation Requirements

A minimum of 21.5 units of credit earned over a four-year period is required for graduation from University High School.

DEPARTMENT	CREDITS REQUIRED
English	4
History	3
Mathematics	3
Science	3
World Language	2
Computer Science	.5
Fine Arts	1
Music	1
Physical Education	3
Elective (any subject)	1
TOTAL	21.5

For Transfer Students: Requirements for students who enter the the high school after 9th grade may be altered based on the student's previous academic record. Students will be placed in courses based on completed credits from their previous school and placement interviews with department chairs and the administration .

For Current Lab Students: no credit will be granted for coursework outside of Lab.

Additional non-credit bearing programming required for all students:

- Service Learning--required for graduation.
- Advisory--all students enrolled for all four years. Advisory includes assembly and counselor programming.

May Project is a program available to all seniors during the month of May.

Examples of Four-year Programs

Example 1: A well-balanced program that meets graduation requirements and satisfies the admission requirements of most colleges:

1st Year	2nd Year	3rd Year	4th Year
English World Language Intro to Computer Science Math Science or History Music Fine Arts Physical Education	English World Language Math Science History Physical Education Fine Arts <i>Service Learning</i>	English World Language or Elective Math Science History Physical Education Journalism	English World Language or Elective Math Science History Computer Science

Example 2: Humanities Emphasis:

1st Year	2nd Year	3rd Year	4th Year
English World Language Intro to Computer Science Math Journalism History Music / Fine Arts Physical Education	English World Language Math Science History Music / Fine Arts Physical Education <i>Service Learning</i>	English World Language Math Science History Journalism Physical Education	English World Language 2nd World Language Math History Electives Music / Fine Arts Journalism Science (non-Lab)

Example 3: Math/Science Emphasis:

1st Year	2nd Year	3rd Year	4th Year
English World Language Intro to Computer Science Math Science History Music / Fine Arts Physical Education	English World Language Math Science History Physical Education Computer Science <i>Service Learning</i>	English World Language or Elective Math Science History Music / Fine Arts Physical Education	English World Language Math Science Elective: Statistics, Computer Science, 2nd Science

Example 4: Fine Arts/Music Emphasis:

1st Year	2nd Year	3rd Year	4th Year
English World Language Intro to Computer Science Math Science History Fine Arts or Music Physical Education	English World Language Math Science History Fine Arts or Music Physical Education <i>Service Learning</i>	English World Language Math Science History Music or Fine Arts Physical Education	English World Language or Fine Arts / Music Math or Fine Arts / Music Science or Fine Arts / Music History or Fine Arts / Music Music / Fine Arts Computer Science

Grades and Grade Point Averages

Letter grades of A, B, C, D, and F (plus and minus may also be given) are given for all courses listed in the Program of Studies. For yearlong courses, only the final year grade appears on the transcript; for quarter-long courses, the grade of the term appears on the transcript.

Grades of "Incomplete" (I) are assigned to students who do not complete requirements for a class. These obligations must be resolved during the first four weeks of the following quarter, or within a time specified by the teacher. Failure to resolve the incomplete will result in a grade of F unless other arrangements have been made with the teacher.

Grade point averages are based on all of the student's courses taken at University High School (including any University High School summer school courses) in which letter grades are given. It is a 4.0 system, with neither honors points nor weighted grades.

Cumulative grade point averages are computed at the end of the junior year, the end of fall quarter of the senior year, and the end of the senior year. Class rank is neither calculated nor presented to colleges.

Schedule Changes: Adding and Dropping of Courses and Changes in Level

Adding a Course

Students have the opportunity to make changes to their schedules during two designated times—the Spring prior to, and the Summer before—a given school year. Once the school year has begun, students may, for exceptional circumstances, add a course until the end of the second week of school. *Please note that there are entry-date exceptions for this for Fine Arts courses and for any quarter-long courses offered.*

Dropping a Course

Students who withdraw from year-long classes prior to the end of the tenth week of fall quarter will have no notation of that class on the transcript. Students must complete an Add/Drop form (available in the Learning and Counseling office) and have it signed by their parent and teacher, and then must submit it to their counselor. Students who drop classes at any other time during the academic year will be assigned either a mark of WP (Withdrawn Passing) or WF (Withdrawn Failing) and will receive no credit. Quarter-long courses dropped prior to the end of the fifth week of any quarter will similarly not be recorded. After this time a grade of either WP or WF will be recorded. No course may be dropped during the last two weeks of any quarter.

Adding/Dropping of PE Units

All changes must be requested and processed prior to the first day of the six-week unit. This process involves using the department's official add/drop form, on which a number of signatures must be obtained, including parent, department chair, teacher, and counselor.

Changes in Level

In certain situations, it may be determined that a student should change levels in a given course. Examples of this include moving from AAAT to AA in math or Chemistry M to Chemistry C in science. Such changes require conversations between the student, parents/guardians, the counselor, the teacher(s) and the department chairperson. The final arbiter of the decision is the department chair and/or administration.

If a mid-year level change is made, the only grade on the transcript will be that of the course in which the student is ultimately enrolled. An intra-departmental agreement, in coordination with the department chair, will be reached (and shared with students) in regards to how the grade is transferred into the new course grade.

In the History department specifically, students may move from an AT course to a non-AT course for the first five weeks of the the school year after consulting with the teacher(s) involved.

The final student grade for the quarter will reflect both the grade in the old course as well as the new one.

In the Mathematics department, students wishing to switch from an accelerated course to its parallel regular course may do so at any time during the year, provided that the section of the regular course is not full. Such a move should be made in consultation with the student's teacher and the teacher of the new course, and in consultation with the department chair. Together the teachers will determine how the final grade will be assigned. The transcript will reflect only the course the student completes.

Advisory Program

The Advisory system is designed to support each student's academic and personal well-being at University High School. These meetings bring together a small group of students and one educator in an informal setting. The system is based on the premise that students benefit from an additional committed adult advocate, links to resources within the school, and a supportive peer group. Advisory also provides a forum for students to pursue developmentally appropriate topics and questions that are not part of the regular curriculum; the school's counselors facilitate these discussions. The advisor is not a counselor, but works closely with the Learning and Counseling Department.

During the freshman year, Advisory focuses on making a smooth transition to high school. For sophomores, Advisory remains a support from both the advisor and the group, and students participate in the Service Learning Program. For juniors, academic support remains in place and is supplemented by a college counseling component. For seniors, a primary focus is to support advisees through the college admissions and application process, which is led by the college counselors. Throughout the four years, school counselors also engage with advisories to provide social-emotional support, education, and guidance.

The advisor is responsible for monitoring scholastic progress and assisting in the registration choices of his/her advisees. To ensure continuity of care, advisors stay with their groups for all four years.

Counselor Programming: School Counseling Programs and College Planning Seminars

School Counseling Program

School counselors work within the Advisory and Assembly Programs across all grades to address developmentally-relevant issues in the areas of adolescent wellness. The curriculum complements our academic program and addresses the social and emotional themes and needs of adolescence. Our work with students is focused on the prevention of and education around behaviors and attitudes that have the potential to influence, both negatively and positively, academic performance and overall well-being.

Freshman Program

Freshman programming is focused on facilitating a successful transition to the high school setting. Building on the themes discussed during Freshman orientation and retreat, sessions highlight identifying and utilizing resources, establishing school/home balance, managing stress, and communicating respectfully.

Sophomore Program

The sophomore series aligns with the service learning program and emphasizes the student's responsibilities to self and community. Adolescent risk behavior such as experimentation with, use, or abuse of substances and accompanying vulnerabilities are explored through varying perspectives. An emphasis on self-care and being a supportive peer and community member are highlighted throughout this series.

Junior Program

Junior programming takes into account the increasing maturation, independence and responsibilities that accompany the latter half of high school and middle adolescence. Topics focus on healthy relationships with self and others, and include mindfulness, Diversity, Equity, and Inclusion (DEI) work, and sexual decision-making, including consent.

Senior Program

In Senior year, our programming supports the work of students with college counselors and provides a space for reflection on their high school experience as they begin the transition to college and young adulthood. There is an emphasis on health and safety both in the final year of high school and as the students transition to the next step. Navigating the transition to a post-secondary environment, with intentional exploration of academic and social aspects of college life, is highlighted.

College Counseling Program

Juniors and seniors are assigned to informational college workshops during designated times to work in small group settings on the college planning process.

Junior Program

Students are assigned to a Junior College Workshop session, which meets once weekly during winter and spring quarters of their junior year. Students meet in small groups with College Counselors to engage in a preparatory curriculum. College Counselors use this time to distribute information about course registration for senior year, to register students in our college search and application online tool called Naviance, and to guide students in post-secondary planning. These sessions supplement, but do not replace, the individual and family college planning meetings scheduled during junior year.

Senior Program

Seniors meet in fall quarter with their College Counselor during designated Wednesday Advisory sessions. College Counselors address general tasks, deadlines, and responsibilities involved in the college application process, high school-to-college transition issues, and other senior class concerns. Seniors meet in this group format with their College Counselor in winter and in spring quarter as they navigate final steps in the college selection process. These sessions supplement, but do not replace, individual and family college planning meetings scheduled during senior year.

The Pritzker Traubert Family Library

The library is central to the High School program. It offers a rich supply of resources, both in support of the curriculum and for the personal growth and enrichment of each individual student. The collection includes approximately 30,000 volumes of books and 80 periodical titles, a strong reference collection, and valuable resources such as a growing multimedia collection and a rich array of databases. The collection is continually updated to support the curriculum, and respond to students' and teachers' requests.

Librarians are available at all times to help and instruct students, individually or in groups, with research and recreational reading and to work with teachers to ensure the availability of all necessary resources.

Many teachers bring their classes to the library for orientations and instruction in research and database searching. Desktop and laptop computers are available for the students. The online catalog and databases can be accessed from home at www.ucls.uchicago.edu/schools/programs/libraries/pritzker-traubert-library

High School students also have access to, and full privileges at, the University of Chicago libraries starting in tenth grade, or with special permission in ninth grade. The depth and breadth of the University of Chicago's online library resources are available to all High School students from anywhere they have internet access.

For materials not available in the library, students are encouraged and assisted by school librarians in using public libraries, special libraries, and museum collections in the city.

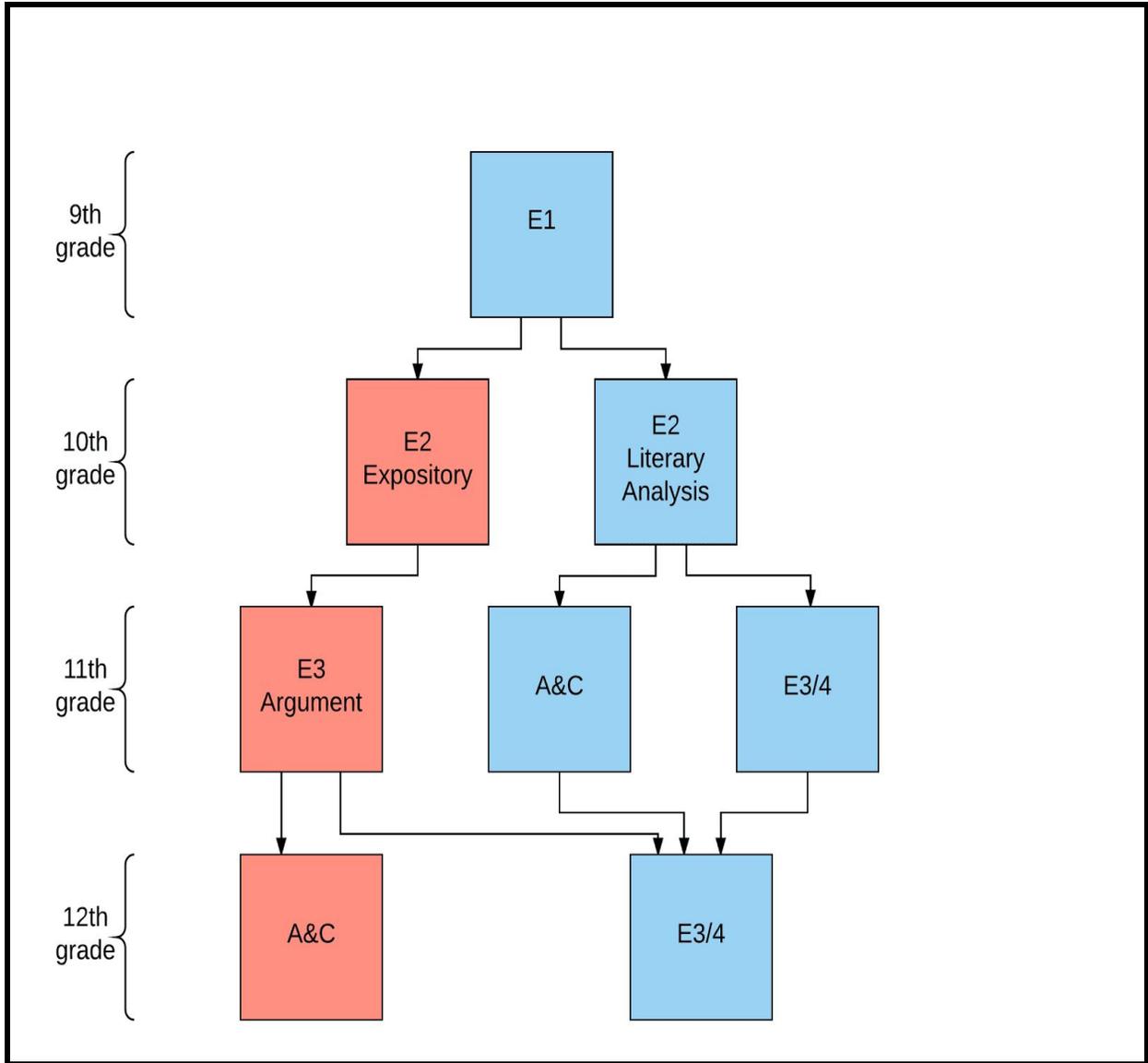
The Program

English

The curriculum of the English Department is designed to help students read literary texts very closely in order to discover what the text says, what the text means, how the text affects them, and how the text achieves its effect. We study texts by a variety of authors from various countries (concentrating especially, though by no means exclusively, on literature originally written in English) and from various periods. Although we explore backgrounds to the texts we read, our courses do not survey literature chronologically. Through class discussions and activities, study guides, written homework grounded in the text, and analytical essays, we help our students to understand figurative language, imagery, and patterns of language and to draw progressively more sophisticated inferences. Through their work, students engage in a dialogue with the text at hand, letting it speak directly and personally to them, and, in their turn, speaking their insights to it and asking their questions of it.

Our writing program focuses on analytical writing. We help our students learn how to find a valid thesis; how to research a text to find support for the thesis; how to narrow or expand the thesis to fit the assignment; how to organize according to what the thesis says and to its logic. Students use rough drafts to develop appropriate rhetorical strategies; to check for errors in grammar, usage, and mechanics; and to come to logical conclusions. As in our class discussions, we teach our students to support their ideas by quoting directly from the text or texts under consideration. Our students also explore literature by writing personal essays, short stories, and poems.

Students must complete four credits of English and be enrolled in an English class during each quarter. All freshmen enroll in English 1, a year long course. Sophomores choose between two yearlong English 2 courses, Literary Analysis or Expository Writing. After completing Literary Analysis, students may elect to take Analysis & Composition or English 3/4 as juniors. After completing Expository Writing, students enroll in English 3—Argument in their junior year. As seniors, those students choose between Analysis & Composition and English 3/4.



English 1

Course Number: 1110

Credit: 1

Prerequisite: None

The French writer Flaubert wrote to an acquaintance about the importance of reading: Don't read, he insisted, only to amuse yourself or to fill your head with practical information, but instead, "read in order to live." Reading is at the heart of the high school English curriculum, and we want every student to experience the vital reading that Flaubert identifies. To that end, English 1 is a yearlong course that introduces students to personal and intellectual engagement with literature, especially through close reading. All students study several core texts. In recent years, those have included novels—Rushdie's *Haroun and the Sea of Stories*, Johnson's *Middle Passage*, Salinger's *Catcher in the Rye*—plays—Sophocles' *Antigone*, Glaspell's *Trifles*, and Shakespeare's *Macbeth*—and memoir—Angelou's *I Know Why the Caged Bird Sings*. In class, students learn to develop and challenge their ideas through discussion. Students complete a variety of writing assignments in which they elaborate on and support the ideas they develop through their reading. Students also work on creative writing skills with personal narrative or poetry. In addition, students receive instruction in grammar, mechanics, and style.

English 2: Literary Analysis

Course Number: 1123

Credit: 1

Prerequisite: English 1 and the permission of the department

“Literary Analysis” builds upon the reading and writing skills from English 1. Students read short fiction and personal essays in the first and second quarters and study longer narratives intensively in the second and third quarters. Recent narratives have included Golding's *Lord of the Flies*, Morrison's *The Bluest Eye*, and Fitzgerald's *The Great Gatsby*. Students also study a work of contemporary American drama in coordination with a local production. In recent years, plays have included August Wilson's *Seven Guitars* (Court Theatre), and Ayad Akhtar's *Disgraced* (Goodman), and Rohina Malik's *Yasmina's Necklace* (Goodman). Through a series of structured assignments, students learn to organize claims and evidence logically and coherently to support a complex inference about a character in a literary work. By the end of the year, each student completes an academic paper that explores a detail or question he or she has discovered independently. While the writing curriculum focuses heavily on analysis, students also produce a portfolio of different kinds of personal essays. As “Literary Analysis” requires strong reading skills at the beginning of the year, placement in the class is based on the permission of the department.

English 2: Expository Writing

Course Number: 1122

Credit: 1

Prerequisite: English 1

While the writing curriculum in “Literary Analysis“ focuses on the close reading of literature and on exploring those ideas through analytical writing, this English class asks students to develop their skills through expository writing that explains or describes. Students will produce a portfolio of essays, usually including the description of a process, an extended definition, and a comparison. Students also write to narrate, describe, and reflect on personal experiences. Across all of these assignments, students work on writing clearly and precisely and on organizing information coherently. The reading curriculum focuses on accurate reading and inferring from textual details. Students read short texts that present different challenges for comprehension, such as archaic language or unfamiliar cultural references. Students also study longer fictional works, such as *Persepolis*, *Things Fall Apart*, and *Frankenstein*. In the two-year sequence of “English 2: Expository Writing” and “English 3: Argument” students will develop the skills in close reading and analytical writing that prepare students for the department’s upper-level classes, Analysis & Composition and English 3/4.

English 3: Argument

Course Number: 1131

Prerequisite: English 2—Expository Writing or the permission of the department

Many people believe they are good at arguing when they are good only at fighting, yelling, blustering, or ranting. In this class, students learn to distinguish an articulate argument from the rest. The first part of the course focuses on argument and rhetoric. Students analyze and assess the logical, and illogical, arguments that surround us in writing, speech, and media. They deliver persuasive speeches and write nuanced arguments. To do so, students grapple with current events, controversial topics, and philosophical concepts. They research issues and learn about the stances different people and groups have taken. Students also consider perspectives that differ from their own and may even have to defend stances they disagree with. By the end of the year, students apply their argumentative skills to literary works. Through the study of fictional and nonfictional texts, students will think deeply about the arguments they encounter every day.

Analysis and Composition

Course Number: 1130

Credit: 1

Prerequisite: English 2—Literary Analysis or English 3—Argument

Analysis & Composition is a yearlong course for students who want to strengthen their background and foundation in several English skill areas. In each quarter, the class focuses on a different aspect of literature. In recent years, students have explored the intertwined themes of identity, community, and storytelling found in texts such as *The House on Mango Street* by Sandra Cisneros, *The Lone Ranger and Tonto Fistfight in Heaven* by Sherman Alexie, *Their*

Eyes Were Watching God by Zora Neale Hurston, and *The Joy Luck Club* by Amy Tan. In most years, students study the elements of drama with plays such as Arthur Miller's *All My Sons* or David Auburn's *Proof*, and compose original one-act plays. Students also read stories that explore multiple perspectives of the Vietnam War in *The Things They Carried* by Tim O'Brien and *The Best We Could Do* by Thi Bui.

While the writing curriculum focuses on literary analysis, the course includes opportunities to develop and refine narrative and creative writing skills. The writing curriculum focuses on growth, so students set writing goals for each analytical assignment and focus on meeting their specific goals. Students also participate in writing workshops and conferences with peers and with the instructor. Throughout the year, students keep a writing portfolio to review, evaluate, and revise their work. The English Department is committed to keeping the size of Analysis and Composition classes at a maximum of fifteen students, so students can receive more individual attention and instruction in class and conference time outside of class.

English 3-4

Course Number: 1140

Credit: 1/3 per quarter

Prerequisite: English 2

English 3-4 consists of three quarter-long courses each year for juniors and seniors who are not taking Analysis and Composition. The teachers of English 3-4 expect students who choose to take electives rather than Analysis and Composition to be highly competent in their analytical reading and writing and develop their various curricula with this expectation in mind. Students in English 3-4 choose their classes at the end of each quarter. Elective courses emphasize analytical writing in response to literature, usually novels, novellas, short stories, essays, poems, drama, or film. The basis for both discussion and written work is a close reading of the course's texts. The works are typically chosen around a theme, an author, a genre, or a combination of any of these. In addition to literature courses, at least one elective each year emphasizes story and/or poem writing. At the end of each quarter, a student receives a final grade for the elective in which he or she was enrolled.

We offer an elective program to juniors and seniors because we believe it is important for upperclassmen to begin to take responsibility for determining the content and direction of their education. Each quarter students enrolled in the elective program will receive full descriptions of the courses we will be offering the following quarter. Students will then indicate their first, second, and third choices. Although we will make every attempt to assign students to their first choices, in order for us to achieve a numerical balance among the classes and thereby give all students the same opportunities within their English classes, students will sometimes get their second or third choices. To ensure that no student is burdened by an inordinate number of second and third choices, we keep careful records of choices and promise that at least half of each student's courses will be his/her first choice.

Possible course offerings for next year include:

Great Expectations

Faulkner & Steinbeck

Chicago Literature

Story-writing

Food Writing

Waiting for Godot & Station Eleven

Hard-Boiled Detectives

American Supernatural Fiction

American Drama

Shakespeare

Crime & Punishment

Literature & Film

Graphic Novels

Animals in Literature

The *Book of Job*

History

The History Department believes that the serious study of history teaches students to examine and appreciate the multicultural and interdependent nature of the world. We approach our own and other cultures in a spirit of openness, respect, and intellectual honesty—the habits of mind that inform a liberal education.

Members of the department share a preference for the inquiry approach to learning. We ask open-ended, interpretive questions to promote critical thinking and thoughtful speculation, and we teach our students to formulate their own questions and to develop the skills necessary to find sound and supportable answers. We often provide resources that present the context for historical questions, and then guide students to analyze, draw conclusions, and provide evidence for their interpretations. We use a variety of instructional means including reading, discussion, group work, debate, simulation, and lecture to implement this approach.

Research

The Department is committed to teaching sound research techniques, and in our courses, students learn how to locate relevant information, to read critically, to take effective notes on what they read, and to recognize the point of view and the context of sources. They learn to marshal strong evidence in support of their arguments and are consistently made aware that relevant evidence and explanation is critical to rendering historical judgments—that without them, neither written nor oral opinion merits much consideration.

Writing and Speaking

As important as research skills are, they are of little value unless students can express themselves thoughtfully and articulately, and we provide them many opportunities to refine their writing and verbal skills. In writing, they learn to formulate a strong thesis, develop well-constructed paragraphs and effective transitions, and to create persuasive introductions and conclusions.

Students develop comparable composition skills for oral work. In addition to work on composure, diction, voice pitch, rate speed, and gestures, we emphasize keeping in mind a good sense of one's audience in both speaking and writing.

Assignments

The History Department frequently assigns short, critical essays and student-centered projects such as debates, simulations, oral presentations, and student-led discussions. The culminating activity for a specific unit of study often involves a short research paper or an essay test. Objective tests provide additional incentive for students to secure mastery of essential information on a particular subject. In some courses, we assign long-term projects that span a significant part of a quarter.

Our Goal

We believe that students graduating from the University High School should be well prepared for advanced study at the university level. They should have a deep appreciation for the importance of historical analysis in understanding the contemporary world, as well as the past. Our goal is that they leave Lab having acquired the rigorous skills necessary for future academic work in history, as well as an abiding awareness of the pleasure and enrichment that studying history can provide. They should leave Lab with confidence in their research, writing, and speaking skills that will bode well for their work in future endeavors in the social sciences and the humanities.

Course Offerings

All students are required to take three years of History but we encourage four years. Our courses are chronologically arranged with the exception of our electives and independent study that are reserved for juniors and seniors.

Our first-year offering is Early World History. This is a foundational course in terms of both content and skills for the four second-year courses. A passing grade in Early World History is a prerequisite for enrollment in any second-year offering.

Our second-year courses include Modern World History—an extension of the Early World course; Western Civilization, with a special focus on research and writing; and two Advanced Topic courses for college-level reading, research, and writing. AT Modern World History emphasizes broad themes and interaction among different areas of the world; AT Modern European History stresses Europe's role in shaping the modern world. Students must have a B in their previous history class to qualify for an AT course.

In the third year the Department offers American History and AT American History that are both opportunities to apply the historian's skills to our own context. For those who wish a more specialized focus, we offer AT African American history, which also fulfills the third-year requirement. One of these three courses is required for graduation.

The Department offers a number of electives to enrich the History curriculum. A popular elective is a yearlong micro and macro economics course. For 2018–2019, an additional year-long elective will be offered: The Road to Genocide.

Advanced Topics History Courses

Advanced Topic History courses are accelerated courses equivalent to their university/college counterparts. Students enrolling in these courses must be willing to (1) commit themselves to a faster paced course with significant nightly readings that require note-taking, (2) plan and compose lengthy written works on a biweekly basis, (3) conduct independent research using academic books and electronic subscription databases outside of class, and (4) demonstrate disciplined habits, motivation, and initiative. In short, students must be learners capable of independent work habits inside and outside the classroom. Teachers of these courses (1) plan a rigorous and complex curriculum equivalent to the university/college curriculum, (2) challenge students to enhance their own reading, discussion, research and writing skills, and (3) provide a

student-centered classroom environment so that students may develop and discuss their own ideas and embrace innovative thought.

Early World History

Course Number: 1610

Credit: 1

Prerequisite: None

Early World History introduces students to historical study and research. It is a prerequisite for all other courses in the History Department. The majority of students take it as freshmen.

The course examines world civilizations from prehistory to the medieval period with emphasis on analyzing essential cultural attributes, including political, economic, religious, and technological structures. Connectivity among world civilizations, for example through trade, is also a point of focus. Significant attention to geography (both ancient and modern) enables students to appreciate the importance of location and physical conditions that affect the development of civilizations. Students learn to read and analyze a wide variety of primary and secondary sources, including historical literature, scholarly articles, and textbooks. We also emphasize writing skills through careful development of research processes. These include identification of scholarly sources, proper citation techniques, formulation of a historical thesis, and integration of evidence into a coherent argument.

Assessments include a quarterly research project, periodic in-class writing assessments, and source analysis exercises. Students will also regularly engage in discussions involving oral presentations, debates, and directed dialogue. The contextual, research, and writing skills we emphasize are designed as a foundation for all other courses in the History curriculum.

Modern World History

Course Number: 1620

Credit: 1

Prerequisite: Early World History

Modern World History is a rigorous course that is designed to build on the skills and concepts acquired in Early World History. Students will continue to develop reading, note taking, writing, and research skills, and will write at least two analytical research papers (two to three pages) each quarter. The course will be chronological, broadly comparative, and will cover major developments in World History from 1300 to the present.

The first quarter will focus on defining what is meant by the term "Modern." Students will research the meanings of the term and attempt to find evidence for the origins of the Modern World in a variety of global civilizations by examining connections between the Post-classical and Early Modern periods in thinking, economy, political, and social structure in several cultures. The balance of the first quarter will include an extended treatment of the Renaissance and Reformation in Europe, the Age of Exploration and colonization of the Americas, Ming and

Manchu China, the Islamic "gunpowder empires," and cultural responses to the evolution of global trade and the impact of the transatlantic slave trade.

The second quarter will examine what Eric Hobsbawm has described as the "twin revolutions" that have driven Modern History: the "Age of Political Revolutions" and the Industrial Revolution. We will examine the revolutions in thinking that spurred political revolutions in England, the American Colonies, France, Latin America, and in many cities in Europe in 1848. We will give particular attention to the rise of ideologies that legitimated these political revolutions and that would continue to motivate revolutionaries well into the twentieth century. The origins and the evolution of the Industrial Revolution, the creation of class tensions, the "new imperialism," and the rise of anti-imperial nationalisms of the late nineteenth and early twentieth centuries will also receive considerable attention.

The third quarter will explore major developments in the twentieth century beginning with the global origins and consequences of World War I and continuing through the partition of the Middle East, the Russian Revolution and the construction of the Soviet state, the Great Depression, the rise of fascism, World War II, the Cold War, decolonization, globalization, and religious resistance to secularization in the contemporary world.

Western Civilization

Course Number: 1683

Credit: 1

Prerequisite: Early World History

Western Civilization is designed to be especially valuable for students who would benefit from special attention in reading and writing, but is a worthwhile opportunity for all students who would like to focus on the evolution of the western world, with an emphasis on skill development. This class is limited to 15 students to ensure that each participant may receive individual attention and instruction both in and out of class.

Fall quarter begins with a review of Late Antiquity and the development of the medieval world. We examine the non-European influences that spur this period of European history, reading broadly from both primary and secondary sources. The quarter continues through the effects of global changes that led to the Renaissance and Reformation, as well as the economic and technological changes that began to herald the advent of modernity. We cover a long unit on the rise of national monarchies and the impact of colonization, both at home and across the globe. The quarter ends examining intellectual and political revolutions that occurred across the "New World" and Europe to the end of the eighteenth century.

Skill development in the fall encompasses a review of the essentials of summarizing and paraphrasing, outlining, and analyzing both primary and secondary sources. Students become familiar with the library collections in our Rowley Library and in the University of Chicago Libraries, learning how to select good resources and use them effectively. Students write an

analytic research paper, 5- to 8-pages in length on a topic that interests them on some aspect of seventeenth century Western history.

Winter quarter covers Western development from the French Revolution through World War I. We broadly examine the effect of French ideology and the development of modern political, economic, and social theory. Industrialism, urbanization, and migration highlight our study, with close textual analysis of works by key critics of the period, including Bentham, Owen, Mills, Darwin, Fourier, Marx, and Engels. We also examine the cultural revolt in Romanticism and the increasing role of women in all levels of society. This is followed by the further development of national identities and the scramble for imperial power that ultimately led to the failure of the alliance system and the onset of World War I. During this quarter, students write a 10- to 12-page paper on a question related to the interconnectedness of events inside and outside Europe that led to World War I.

The War itself and the effect of the Versailles Treaty on both European and non-European nations will begin the spring quarter. This is followed by an analysis of the evolution of the Soviet Union and the development of totalitarianism, both communist and fascist, in the turmoil between the wars. Looking at Germany, Italy and Spain, we will consider why each country adopted some form of fascism and how that contributed (or not) to global stability. We will also examine the causes and origins of the Second World War (or if it was just a continuation of the First), studying the Nazi goals and objectives as a foundation for studying the Holocaust. The final stages of World War II and the decision to drop the atomic bomb are also highlighted at this point. We finish the quarter with an analysis of the Cold War and the impetus for globalization, ending with the fall of the Soviet Union.

AT Modern World History

Course Number: 1622

Credit: 1

Prerequisite: B or better in Early World History; or permission of the instructor.

The ultimate goal of AT Modern World History is to help students acquire the analytical skills and historically-based content knowledge necessary to be wise, well-informed, and responsible global citizens. AT Modern World History combines the regional focus of AT Modern European History with a thematic focus on the larger historical processes, patterns and trajectories that have unfolded over the past seven centuries as population pressures and environmental factors have brought geographically and culturally diverse peoples into increasingly close contact. Key regions normally covered include the Middle East, Sub-Saharan Africa, and China, but other significant regional actors (India, Europe, the former USSR, and the United States) are, by necessity, taken into account.

Students are introduced to the content of the course via daily readings and class discussions, frequent guest speakers from UChicago, and an introduction to the modern film culture of selected regions of the world; you may have seen *Red Cliff*, but what about *Dead Sands*, Bahrain's first zombie movie? Additionally, a new collaboration with select language faculty

from Lab and UChicago enables students to customize certain assignments in order to gain a deeper understanding of the cultural context of either their study language or their heritage language. This will be particularly helpful for heritage speakers, and/or for students hoping to take one of the AP Language and Culture exams during their time at U-High.

Students begin the year with in-depth reading and research to acquire a detailed, comparative understanding of the unique historical development (cultural, economic, political) of each key region. Equipped with that knowledge, they then focus on the history (1400 onward) of the many complex (and equally unique) transregional interactions: conflicts, migrations both forced and voluntary, upsets to power balances within and between regions, transformations wrought by exchanges of goods, ideas, and people, and, equally as important, the transformations resisted by those same exchanges.

During the fall quarter we focus on the historical development of the modern Middle East and the Arab World, particularly in relationship to European colonizing powers. This acquaints students with the remarkable cultural diversity of an oft-misunderstood region, and helps them begin to understand the complex origins and trajectories of some of the most vexing conflicts and disturbing events of recent history.

During the winter quarter our primary focus is on the historical development and oft-unrecognized cultural and political diversity of Sub-Saharan Africa(s). Students will become acquainted with the enormous impact upon Africa of a variety of transregional interactions, particularly those involving Europe and the U.S. (including colonization, apartheid and other racisms, and most tragically, slavery).

Finally, the third quarter focus on China/Asia introduces students to the historical, political, and economic development of a region now so robust that some have taken to calling ours the "Pacific Century."

AT Modern European History

Course Number: 1626

Credit: 1

Prerequisite: B or better in Early World History

It is difficult to understand today's world without a working knowledge of how events in Europe from 1453 to the present have influenced and shaped the entire world. Four examples are instructive. First, the opening of the Atlantic not only transformed the demography and future of the Americas, but transformed economic relationships between Eurasia and the Americas as silver flowed across both the Atlantic and the Pacific. Second, the political and intellectual foundations of this country—including our most treasured rights such as freedom of speech, religion, and press as well as protections against tyranny in the form of separation of powers and due process—remain European and must be understood in their historical context to be appreciated fully. Third, the ideologies that emerged in the eighteenth and nineteenth centuries—including liberalism, humanitarianism, socialism, feminism, and communism—form the basis of modern nation-states and political party platforms across the globe today. Lastly,

European imperialism transformed Asia, Africa, and Latin America irrevocably. The modern Middle East, for instance, was formed as a result of British and French machinations during World War I and altered the world we live in today. Likewise, the trajectory of India and Pakistan was transformed by the arrival of the British, and a truly inclusive narrative of World War I and II includes the role of colonial soldiers in the British Indian Army and how this role impacted the path to independence in 1947. Finally, Russia and China's embrace of communism in the twentieth century cannot be understood without its meaning intellectually as well as its context of imperialism and war.

One of the key lessons of this course is that it is a fallacy to claim any monolithic "European perspective." Rather, "Europe" always contained a myriad of perspectives based on geography, ethnicity, religion, socioeconomic status, and ideology. This has only grown truer in the last seventy years, given post-WWII immigration to Europe from former colonies as well as the influx of refugees since 2011. Today, globalization is increasingly diminishing national borders, while paradoxically calling into question supranational organizations like the EU and UN. This course challenges students to bridge the distance between unique cultural traditions and internationalism. And close attention will be paid to how the resurgence of anti-Semitism and Islamophobia fit into the larger historical narrative of European history. Thus, current events play a large role in the course.

The most important focus of this introductory survey course is to improve your analytical, writing and research skills using complex texts. Examinations typically contain essay questions. Another important focal point of the course is intellectual history, looking to the development of ideas and ideology in history. Every day, we will use the discussion technique of the Harkness Method to create a classroom community that values the free and respectful exchange of ideas, even during disagreements. We stress repeatedly in the course that the identity, context and the childhoods of the great personages of European history shaped their ideas. Nor will our pursuit of intellectual history be confined to the written word. We will explore the intersection of art with European history with a series of seven lectures beginning in the Renaissance and ending in our age of Globalization by a guest art historian and two trips to the Art Institute. Historically, we have also weaved music history into the course, leveraging musically-inclined students and faculty at Lab.

Building on the skills gained in Early World History, you will be assigned two quarterly research papers in which you develop a self-generated research question, an original thesis, and synthesize relevant research to make a broader contribution to the existing literature. One is a "chains of circumstance" research paper specific to early modern Europe, while the other is a "diversity, identity, and history" research paper unique to your heritage and identity. Finally, a unique aspect of this course, in lieu of the AP exam, is the year-end experiential student project. Over the years, this project has shifted between *New Yorker*-type magazines and three act plays based on literary or non-fiction works, and in 2017 featured a mock trial involving the European Union.

United States History

Course Number: 1630

Credit: 1

Prerequisite: Early World History and one of the following: Modern World History, Western Civilization, AT Modern World History, or AT Modern European History.

The U.S. History course moves chronologically through the many events, ideas, institutions, and people that have shaped and influenced the evolution of U.S. cultural and political forms. Each quarter students will read, discuss, debate and write essays and research papers on significant historical issues and questions as presented in primary as well as secondary sources, including the popular press, journal articles, and textbooks. Throughout the year they will have the opportunity to dialogue and deliberate with noted historians, law professors, and political scientists at the University of Chicago and elsewhere, who will serve as guest lecturers. They will also have the opportunity to hone their "public" writing skills by preparing and submitting, for possible publication in local and national newspapers, letters to the editor and/or Op Ed pieces. Additionally, each quarter students are encouraged to supplement their course work by watching relevant documentaries and feature films from a list supplied by the instructor.

Fall Quarter

The quarter begins with an examination of the first integration of North and South American native cultures with European colonizing powers. The focus then narrows to the Northern Hemisphere and takes students through the Colonial, Revolutionary, Early National, and National periods, ending with debates on both the inevitability of the Civil War and the success of Reconstruction. Crucial issues include the impact of colonization and prior political, religious, and cultural influences, the development and logic of the U.S. Constitution, the ongoing theoretical and practical contradictions between democratization and slavery, and sectionalism and westward expansion.

Winter Quarter

Second quarter topics include immigration, gender developments, the rise of populism and progressivism, technology and the economy, industrialization and the rise of organized labor, urbanization, and the rapid expansion of U.S. influence beyond its physical borders. Students will also be introduced to historiographical issues, with particular attention paid to the contributions and questions of the Progressive historians in the wake of Reconstruction. Additionally, they will begin regularly reading the Op Ed pages of the *New York Times* and the *Chicago Tribune* and will engage in debate on the historical foundations of current events.

Spring Quarter

During the third quarter students will begin by focusing on the aftermath of World War I, looking at foreign policy and international issues that set the stage for World War II, as well as the global economic and political realignments that occur in the wake of that war. Students will also focus on significant domestic issues including the Depression and New Deal, evolving fiscal policy, demographic shifts from farm to city and south to north, the struggle for African American rights in the culture and the courts, changing roles for women, and concerns about the rise of communism. During this quarter students will have the opportunity to read and critique

examples of American literature that are particularly relevant to historical topics under consideration.

AT United States History

Course Number: 1636

Credit: 1

Prerequisite: Early World History and B or better in one of the following: Modern World History, Western Civilization, AT Modern World History, or AT Modern European History.

The ultimate goal of AT US History is to help students acquire the analytical skills and historically-based content knowledge necessary to be wise, well-informed, and responsible citizens of our nation and world. As with prior courses in the History sequence, the interpretation of primary source texts is foundational, but in AT US History students will also be introduced to the idea that the American context is itself a text that historians must learn to read and interpret in order to better understand the nation's past and present.

We begin with an examination of the initial interactions between the European colonizing powers and the First Peoples of the Americas, and end at the present day. In between, we move chronologically through the significant events, ideas, institutions, and people that have shaped the nation's culture, politics, and governance. Students will read, write, take tests, discuss, and debate about significant issues, seeking to understand and correlate the events of the past with developments in the present, and emerging trends for the nation's future. They will also have the opportunity to hone their "public" writing skills by submitting OpEds and Letters to the Editor, on themes inspired by course topics, to various state and national newspapers.

Assigned "readings" for the class include a course textbook, along with editorials, articles, essays, and cartoons from the popular press, political and commercial advertisements, popular music and poetry from earlier eras, and selected feature films. Throughout the year we will also hear from a variety of UChicago professors and other thought-provoking guests who will share their insights into events and trends in U.S. cultural and political history.

To prepare students for college-level work in the humanities and social sciences, the course structure gives them time for independent research on themes and topics of their own choosing (from politics, literature, women's history, or family history, to the history of TV, food or film, etc.). Students will also be introduced to the vast resources of Regenstein Library and Chicago's numerous public and private archives, which they will be able to use for their papers and projects. For their summative projects, students can choose to work alone or in groups, and present their research in non-traditional formats including documentaries, websites, performances, and exhibits, etc.

AT African American History

Course Number: 1641

Credit: 1

Prerequisite: Early World History and B or better in one of the following: Modern World History, Western Civilization, AT Modern World History, or AT Modern European History.

Advanced Topics African American History (AT AFAM) is a full-year course and an opportunity to take an in-depth look at US history from the vantage point of the African diaspora in the Atlantic world. The overarching goals of the course are for students to gain new content, increase their confidence with primary sources, and practice their research, writing, and revision skills. AT AFAM is a course where students can exhibit their growing independence through advanced readings and assignments that call on them to be self-sufficient in their work.

AT AFAM focuses heavily on the study of the history of race and racism in the United States and its importance to the story of all Americans. It begins with a survey of the history of sub-Saharan West Africa and continues to the present era with a focus on essential questions that are designed to introduce students to some of the social, economic and political forces that shaped and determined the character of African American history. Throughout the year, emphasis is placed upon investigating and analyzing the perspectives of various historians and historical debates, the importance of challenging common narratives, and building connections to current events whenever possible.

Assessments in AT AFAM include an in-depth quarterly research project, short quizzes that include vocabulary identifications and primary source practice, and periodic out-of-class writing assessments that focus heavily on primary source analysis and argument development. Students will also regularly participate in and run discussions, debates, presentations and book clubs among other small and large group activities. For many students, this will be the last history course in their high school careers and is designed as an opportunity to practice their skills in preparation for their next steps in life.

History Department Electives

AT Micro and Macro Economics (year-long)

Course Number: 1661

Credit: 1

Prerequisite: Junior or Senior status

In case you haven't noticed, it is becoming increasingly difficult to operate in today's world without a thorough knowledge of economics. As Adam Smith would say, it is in your self-interest to become informed about economics and, if you don't have the insight to understand this, let his invisible hand sweep you into the full year elective. By enrolling in this course, you will be taking the equivalent of college courses in both micro and macro economics, and you will spend a lot of time studying behavioral economics: how can you line up behind yourself, and why do we value losses more than gains? Hey, did you know that Coke commercials can actually make the product taste better? Through in-depth research projects, attention to current events, expert guest speakers, and plenty of class discussion, you will examine these issues and many more.

The microeconomics half of the course will focus on you—the individual—and how economic principles can help you become a better consumer. Did you know, for example, that you are supposed to maximize your utility when you make a decision and that you should only “undertake any (economic) activity up to the point at which the marginal benefit equals the marginal cost?” In micro, we will also learn about the “firm” and what sort of markets they operate in. What is the difference between monopoly and perfect competition? What the heck is an oligopoly?

In the macroeconomic part of the course, we will learn about economic concepts and how they affect public policy. What, for example, was the best economic policy to get us out of the Great Recession? Did Keynesian stimulation work? How dangerous are the huge deficits and debt this stimulation has facilitated? And what about globalization? Should we try to limit outsourcing and rewrite free trade agreements like NAFTA because American jobs are flowing out of this country?

All these answers are yours in AT Economics.

The Road to Genocide (year-long)

Course Number: 1684

Credit: 1

Prerequisite: Early World History and B or better in one of the following: Modern World History, Western Civilization, AT Modern World History, or AT Modern European History.

The Road to Genocide examines the history of twentieth and twenty-first century genocide. It is a yearlong course that begins with an in-depth analysis of the Holocaust and the development of the concept of "genocide," followed by an examination of experiences across Eurasia and Africa. Fall quarter and the first half of winter quarter will include a review of Germany history through unification and the Weimar Republic, the development of Nazism and the rise of the Nazi Party, as well as a consideration of the conditions of Jews in Europe (especially Central and Eastern Europe in the Pale of Settlement) through the development and emptying of the DP Camps in 1945–1947. A highlight of the class will be a research trip to the U.S. Holocaust Memorial Museum.

The second half of the course will begin with an analysis of the UN Genocide Convention on the Prevention and Punishment of Genocide. It will then focus on the history of other genocides in Eurasia and Africa, including but not limited to the genocide of the Herero in German South-West Africa, the Armenian genocide, the Ukrainian genocide under the Soviets, the Cambodian genocide, the Rwandan genocide, genocide in the former Yugoslavia, the genocide in Darfur, and the Syrian genocide of the Yazidis. We will examine the historical trends that led up to the genocide, the perpetrators, the victims, the purpose and means, the responses, and the long- and short-term effects of the experience. Students will read eye-witness accounts of these genocides and do in-depth research on procedure and prevention.

Mathematics

The Math curriculum at U-High has breadth and depth. We prepare students for calculus, to be taken in either high school or college. But, we also prepare students to analyze data, to understand probability and other topics that prepare students for future study in the social sciences, computer science, and humanities. We try to help students discover why things are true while also teaching them the necessary algorithms for solving problems. We expect our students to communicate the mathematics they are learning by using correct notation and vocabulary, and by using the needed words to help answer the questions that are asked. Generally, our philosophy is to expect students to learn to do problems “by hand” without the use of technology, at least on a small scale. We then extend the concepts to learning to do larger scale problems with technology.

University High School requires that every student successfully complete at least three years of mathematics while in high school. Students who have questions about the mathematics requirements or problems concerning prerequisites and placement are urged to see their mathematics teacher or the chairperson of the Mathematics Department. The Mathematics Department is careful to place each student in a course appropriate to the student's background and interests.

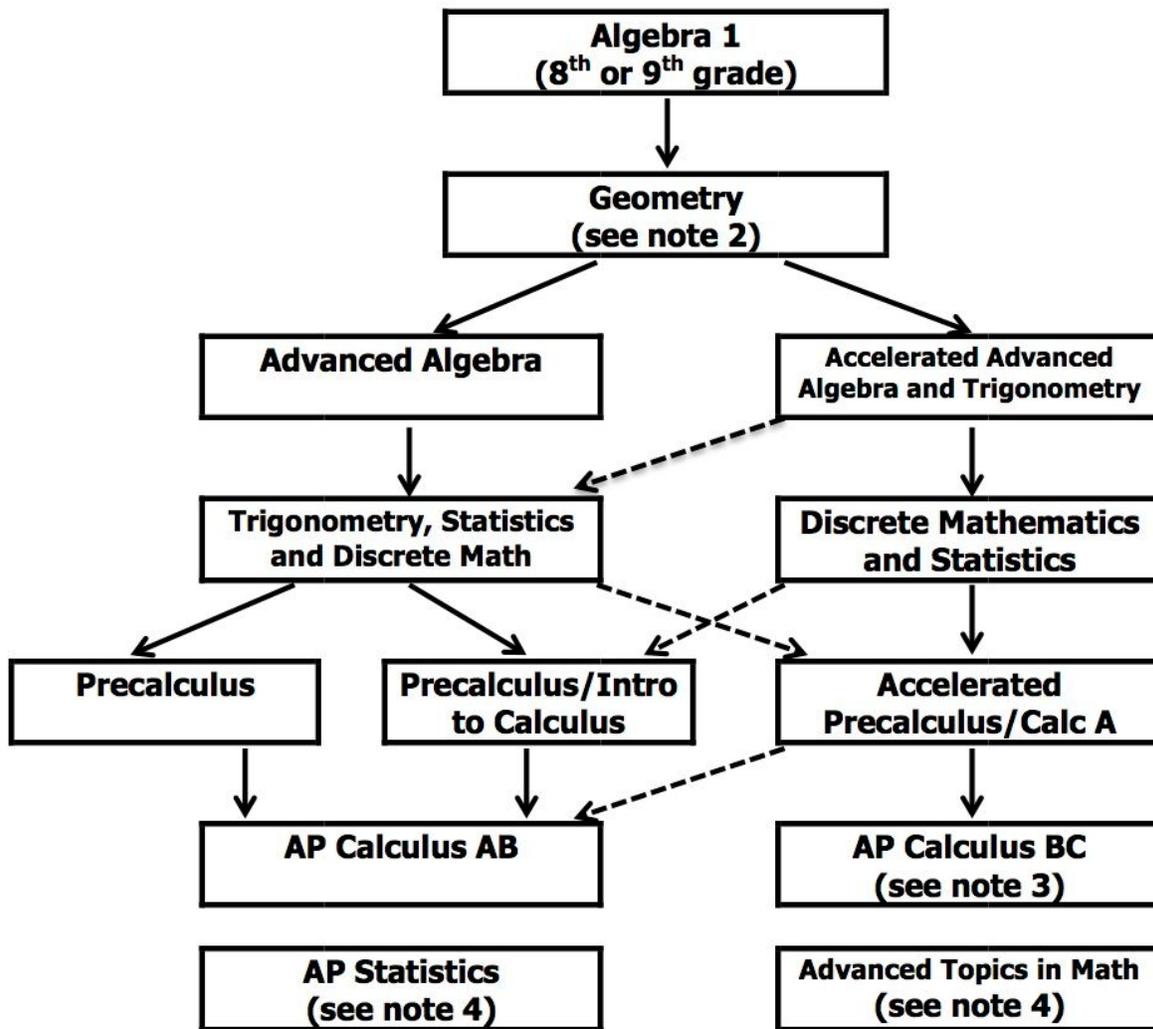
Credit And Placement

The normal policy of the Mathematics Department is not to award partial credit (credit of less than one unit) for work in mathematics of less than one year. Seniors who leave school early for May Project will receive one credit for AP Calculus or AP Statistics and $\frac{7}{8}$ of a credit for any other mathematics course.

Equipment

Graphing calculators are required in all courses and are used extensively starting at Advanced Algebra or Accelerated Advanced Algebra/Trigonometry. Students purchasing calculators should choose one of the TI-84 models.

Depending on their previous math classes, generally entering ninth grade students are placed in one of the following courses: Algebra, Geometry, Advanced Algebra, or Accelerated Advanced Algebra and Trigonometry. Typically students take one math course per year. However, it is possible to go faster through the course sequence by taking more than one course in a year after completion of an Advanced Algebra level course. Students who wish to accelerate their studies should discuss their plans with their mathematics teacher and the mathematics department chair.



Notes on the Sequential Flow Chart

Note 1: Solid lines indicate the traditional sequence of courses. Dotted lines indicate possible alternate sequences for students wishing to be in classes that move at a different pace. Students electing to move from Trigonometry, Statistics and Discrete Math Topics to Accelerated Precalculus/Calculus A may be required to do independent work in preparation for the next course.

Note 2: Students who complete Algebra in eighth grade at Lab Middle School with at least a grade of 70% average take Geometry in ninth grade. Students who complete Algebra in eighth grade at Lab Middle School with an average of at least 90% are eligible to take Summer Geometry at U-High between eighth and ninth grades.

Note 3: Placement into mathematics courses at the University of Chicago is at the discretion of the Mathematics Department at the University. It is based on the the results of the University of Chicago's Calculus Accreditation Exam, which is administered by the Office of the Dean of

Students in late Spring and early Summer. To be eligible to take the Calculus Accreditation Exam, students must have successfully completed the AP Calculus BC course offered by the Mathematics Department at the Lab Schools, and earned a score of five on the actual AP exam (or be deemed by the instructor of the course to have a strong expectation of doing so).

Registration for the Calculus Accreditation Exam for Lab students is through the Mathematics Department at the Lab Schools. Qualified students interested in sitting the Calculus Accreditation Exam should contact the Mathematics Department at the Lab Schools in early Spring of the year in which they plan to take the exam. Students who are permitted to enroll in University math are also permitted to miss Advisory if the university course is scheduled at the same time as the high school advisory program.

Note 4: See course descriptions for prerequisites for these courses.

Algebra 1

Course Number: 1410

Credit: 1

Prerequisite: Placement by the department

This course is the foundation for high school mathematics courses. Topics include simplifying and evaluating expressions; solving equations, inequalities, and systems of equations; graphing linear and quadratic functions; operations with polynomials, rational expressions, radicals, and exponents. Applications are presented within the course content.

Summer School Geometry

Course Number: 2450

Credit: 1

Prerequisite: Algebra 1, Algebra 1 from Lab MS or Lab HS with at least an average of 90%, and placement by the department

This class is designed for students who have already completed a year of Algebra in eighth grade or high school and wish to advance in mathematics. The course includes congruence and similarity; properties of polygons, circles, solids, and proofs. Both Euclidean and algebraic approaches are explored. Applications of Geometer's Sketchpad are an integral parts of this course, as are constructions with a compass and straightedge.

This is an intensive six-week full Geometry course. Homework requirement is about four hours per day.

Geometry

Course Number: 1420

Credit: 1

Prerequisite: Algebra 1 and placement by the department or final average of at least 70% in Algebra from Lab Middle School and placement by the department

This course includes congruence and similarity; properties of polygons, circles, and solids; proofs. Both Euclidean and algebraic approaches are explored. Some constructions are done with compass and straightedge. Geometer's Sketchpad is used for demonstration and investigation.

Advanced Algebra

Course Number: 1430

Credit: 1

Prerequisite: Geometry or placement by the department

Topics include: number systems, including complex numbers; equations and inequalities; linear, quadratic, polynomial, and rational functions, their properties and graphs; radicals, exponents, and logarithms; systems of equations; matrices; applications.

Accelerated Advanced Algebra/Trigonometry

Course Number: 1431

Credit: 1

Prerequisite: Completion of both Algebra and Geometry with a final grade of at least B- or placement by the department

This course provides a thorough introduction to mathematical functions. Topics include: linear, quadratic, exponential, logarithmic, rational, polynomial, and trigonometric functions, applications, and proofs.

Discrete Mathematics and Statistics

Course Number: 1440

Credit: 1

Prerequisite: Accelerated Advanced Algebra/Trigonometry with a final grade of at least B- or placement by the department

Topics include: Matrices, sequences and series, mathematical induction, combinatorics, the binomial theorem, probability and statistics.

Trigonometry, Statistics and Discrete Math Topics

Course Number: 1450

Credit: 1

Prerequisite: Advanced Algebra or AAAT or placement by the department

Topics include: Trigonometry, sequences and series, binomial theorem, combinatorics, introductory probability and statistics, and matrices. Applications are emphasized.

Precalculus

Course Number: 1459

Credit: 1

Prerequisite: Trigonometry, Statistics, and Discrete Math Topics or placement by the department

Topics include: Linear, quadratic and polynomial functions; radical, rational, exponential and logarithmic functions; trigonometry. Some concepts that will be used in calculus are introduced and used throughout the course.

Precalculus / Intro to Calculus

Course Number: 1460

Credit: 1

Prerequisite: Advanced Algebra and Trigonometry, Statistics, and Discrete Math Topics with a final grade of at least C in each or placement by the department

Topics include: Polynomial and rational functions and inequalities; exponential and logarithmic functions; trigonometry, polar coordinates, and complex numbers; conic sections; vectors and parametric equations; topics in three dimensions; limits; introduction to polynomial derivatives and integrals and their applications.

Accelerated Precalculus / Calculus A

Course Number: 1461

Credit: 1

Prerequisite: Discrete Mathematics with a final grade of at least B- or placement by the department

This course is designed for students who plan to complete the AP Calculus BC course. Topics include: polynomial, rational, exponential, and logarithmic functions; trigonometry; conic sections; polar coordinates and polar form of complex numbers; vectors and parametric equations; topics in three dimensions. The spring quarter is devoted to the beginning of BC Calculus, covering limits and derivatives and their applications.

AP Calculus AB

Course Number: 1470

Credit: 1

Prerequisite: Accelerated Precalculus/Calculus A with a final grade of at least C-, Precalculus/Intro to Calculus with a final grade of at least B-, Precalculus with a final grade of at least A- or placement by the department

This course follows the Advanced Placement AB Calculus syllabus including limits, derivatives, integrals, and differential equations. Success on the AP Calculus AB examination normally leads to advanced placement and/or credit in college mathematics.

AP Calculus BC

Course Number: 1472

Credit: 1

Prerequisite: Accelerated Precalculus/Calculus A with a final grade of at least B- or placement by the department

This course follows the Advanced Placement BC Calculus syllabus. Besides all AB topics, topics include analysis of vector, polar, and parametric functions, and sequences and series. Success on the AP Calculus BC examination normally leads to advanced placement and/or credit in college mathematics.

Advanced Topics in Mathematics

Course Number: 1475

Credit: 1

Prerequisite: Completion of AP Calculus BC or placement by the department

The aim of this course is to initiate students into mathematics beyond the high school curriculum through a rigorous introduction to linear algebra and the calculus of several real variables. Topics from linear algebra will include matrices, vector spaces, linear transformations, and inner-product spaces. On the analytic side, we will begin by constructing the real numbers and looking at some of the consequences of the least upper-bound property for the topology of the real numbers and higher dimensional Euclidean spaces. Equipped with this understanding, we will develop the idea of the derivative of a function of several variables, and study the inverse and implicit function theorems, Taylor expansion for functions of several variables, extrema of functions with constraints, and Lagrange multipliers. If time permits, we will also study the basics of Riemann integration for real-valued functions of several variables.

The course is intended for students with a strong interest in mathematics, the physical sciences, computer science, or quantitative economics. Students are expected to have finished AP Calculus BC. Students in BC Calculus may enroll in this course with the approval of the Mathematics Department.

AP Statistics

Course Number: 1477

Credit: 1

Prerequisite: Two years of laboratory science, currently enrolled in 11th or 12th grade and, completion of or concurrent enrollment in Precalculus/Intro to Calculus or Accelerated Precalculus/Calculus A or placement by the department.

This course follows the AP Statistics syllabus, which is built around four main topics: exploring data, planning a study, probability as it relates to distributions of data, and inferential reasoning. Students are required to purchase the statistics software Fathom.

Science

Science classes at Lab will engage students in the process of inquiry and scientific thinking through laboratory, research, and engagement with the scientific literature.

Every student is required to complete three years of credit in science. All students must first complete the two year introductory sequence of lab-based courses, Biology, followed by Chemistry (C or M). Following this initial sequence, students can select their third requirement year from offered science classes.

Students are encouraged to discuss individual circumstances with their science teacher or with the department chairperson to select their third-year science requirement. Students should also be aware of the mathematics course requirements for some science classes.

Some students come to the Laboratory Schools in tenth grade or later, having successfully completed, at an accredited high school, introductory courses in Biology or Chemistry which closely parallel our own courses. These students will not be required to duplicate their work in the corresponding courses here. Other students may have taken courses at other high schools which are not close matches to the introductory courses here. These students may be required to complete the two-year sequence of introductory science courses at the Laboratory Schools. Working closely with the instructor's discretion, the department will review the placement of students with nonstandard backgrounds.

Biology

Course Number: 1510/1511

Credit: 1

Prerequisite: None

Inquiry is the cornerstone of high-quality pedagogy (National Science Teachers Association, 1998). Introductory Biology is an experience-based class intended to develop a deep understanding of the modern process of science. Using evolutionary thinking as the central explanatory tenet of biology (American Association for the Advancement of Science, 2006), students will explore modern Biology from a factual and conceptual perspective. Students will engage in several inquiry-based projects as they learn modern research methods and the construction of peer-review style papers. The scope and content of Biology will prepare students for more advanced classes in Biology and for productive thinking in science. This class is a requirement for graduation.

This course meets five periods and five days per week.

Chemistry C

Course Number: 1520/1521

Credit: 1

Prerequisite: Biology, Algebra 1

This course satisfies the Chemistry component of the required two-year introductory science sequence. Chemistry C is designed for students of all backgrounds to learn about the fundamental principles of chemistry. Topics introduced in the classroom will use the laboratory as an additional hands-on method to further explore more of these concepts. Specific topics include: kinetic theory, modern theories of the atom, chemical bonding, nuclear chemistry, acids and bases, and electrochemistry. It is recommended that students who will be concurrently taking Geometry register for Chemistry C rather than Chemistry M. However, everyone who has successfully completed Algebra 1 and Biology is welcome to register for Chemistry C.

This course meets six periods per week.

Chemistry M

Course Number: 1525/1526

Credit: 1

Prerequisite: Biology, Algebra 1, Geometry

This course satisfies the chemistry component of the required two-year introductory science sequence. The basis of Chemistry M is a series of classroom and laboratory investigations concerning structure and properties of gases, characteristics of chemical combinations, and conditions associated with chemical change. Specific topics include: kinetic theory, modern theories of the atom, chemical bonding, nuclear chemistry, acids and bases, and electrochemistry. Similar to the scope of Chemistry C, this course is designed for students deemed well prepared for a thorough and rigorous study of chemistry.

This course meets six periods per week.

Neuroscience and Behavior

Course Number: 1579

Credit: 1

Prerequisite: Grades of B or better in Chemistry (C or M)

Neuroscience and Behavior is a rigorous, college-preparatory, year-long course that investigates the human mind and brain. The course combines ethological study of human behavior with modern discoveries in neuroscience. Students will learn about the evolutionary history of the brain and human behavior as well as the anatomy and function of the endocrine system and the central and peripheral nervous systems. Topics will include sensory perception, cognitive development, learning and memory, sleep and dreams, emotions, motivation and attention, pharmacology, language and communication, and social behavior.

This course meets four periods per week and counts as a third-year graduation requirement for Science.

Physics

Course Number: 1540/1541

Credit: 1

Prerequisite: Advanced Algebra, Chemistry

This physics course takes a question-oriented laboratory-oriented approach, and covers mechanics, sound, fluids, electricity and magnetism, and light. Emphasis will be placed on building a strong conceptual understanding of these topics, and there will be much hands-on lab work, conceptual discussion, and problem solving. Mathematics will not be stressed, but will be used as a tool to help build a conceptual understanding of the subject.

This course meets six periods per week.

AT Biology

Course Number: 1532/1533

Credit: 1

Prerequisite: Successful completion of an Biology course and a chemistry course (C or M), with a grade of C or better in all science courses completed, and B or better in the most recent science course completed.

This course is meant to be equivalent to an introductory college biology course. Topics include biochemistry and molecular biology, cell biology, classical and molecular genetics, development, evolution, and plant and animal physiology. There is an extensive laboratory program. The course emphasizes the concepts behind biological process and highlights modern biotechnology and research techniques.

This course meets seven periods per week and counts as a third-year graduation requirement for Science.

AT Chemistry C

Course Number: 1553

Credit: 1

Prerequisite: Grades of B- or better in Chemistry (C or M)

This second-year chemistry course builds on the knowledge and skills learned in Introductory Chemistry. Topics such as atomic theory, kinetic theory, chemical bonding, reaction kinetics, thermodynamics, and equilibrium are expanded in scope. Additional topics including free energy, quantum mechanics, and organic chemistry provide a means of integrating basic chemical principles.

Weekly experimental work is quantitative in nature and will emphasize techniques for evaluation of data. Students who complete this course may not take AT Chemistry M.

This course meets six periods per week.

AT Chemistry M

Course Number: 1554

Credit: 1

Prerequisite: A grade of B- or better in AP Calculus AB/BC, or a grade of B- or better in Accelerated Precalculus/Calculus A or Precalculus/Intro to Calculus with concurrent enrollment in AP Calculus AB/BC. A grade of B or better in Chemistry (C or M). Prior completion of AT Physics I is recommended.

This second-year chemistry course builds on the knowledge and skills learned in introductory chemistry. It is designed for students who seek to understand and interpret chemical events at the molecular level using a largely quantitative approach. Topics such as atomic theory, kinetic theory, chemical bonding, reaction kinetics, thermodynamics, and equilibrium are expanded in scope. Calculus will be used to derive many of the laws seen in introductory chemistry as well as investigating topics such as integrated rate laws, thermodynamics cycles, and particle-in-a-box. Weekly experimental work is quantitative in nature and will emphasize techniques for evaluation of data. Students who complete this course may not take AT Chemistry C.

This course meets six periods per week.

AT Physics I

Course Number: 1563/1564

Credit: 1

Prerequisite: A grade of B- or better in an approved Chemistry class, a grade of B- or better in the previous year's math class, and prior completion of Advanced Algebra or an equivalent course.

The course is designed to provide a firm foundation in physics equivalent to an Algebra-based college course. Topics include Newtonian mechanics (including rotational kinematics), fluid statics and dynamics, thermodynamics, electricity and magnetism, and optics and waves. Laboratory work is also an important component of the course. During the winter and spring quarters students research a topic of their own choosing. Presentations of the projects take place in the later part of April. Students should be well prepared to take the Advanced Placement Physics Algebra I and/or II examination if they choose to do so.

Students should be well prepared to take the Advanced Placement Physics B examination in May if they choose to do so.

The course meets seven times per week and counts as a third-year graduation requirement for Science.

AT Physics II

Course Number: 1565/1566

Credit: 1

Prerequisite: A grade of B+ or better in an approved physics class, and concurrent enrollment or prior completion of Calculus AB or its equivalent.

The course is designed to provide a second year's study in physics, concentrating on Newtonian mechanics and special relativity in the first quarter, and electricity and magnetism in the second quarter. The third quarter is mostly given over to review. If any students are still in the course after the start of May Project, we will look at other topics in physics (to be decided jointly by the teacher and the students). Calculus will be used throughout. Students should be well prepared to take either or both of the Advanced Placement Physics C examinations (Mechanics; Electricity and Magnetism) in May if they so choose.

This course meets six times per week.

Quarter-Long Special Topic Electives

Fall Elective: Electronics

Course Number: 1570

Credit: 1/3

Prerequisite: Chemistry

The course begins with the concepts of voltage, current, resistance, batteries, and AC power sources. Electronic components such as resistors, capacitors, inductors, diodes, and transistors will be covered. A minimum of at least five projects will be constructed. Students who have an interest in constructing specific circuits may be allowed to do so. An understanding of how the circuitry functions will be emphasized along with circuit construction.

The course meets four times per week.

Winter Elective: Cosmology

Course Number: 1573

Credit: 1/3

Prerequisite: Chemistry

Cosmology is the study of the universe as a whole: its origin, its contents, its past, and possible future. The history of humanity's efforts to understand where we and our planet fit in the universe is a series of remarkable episodes, from the earliest written records up to today. For example, how do we know how far away a given star or galaxy is? How did we come to know that the universe contains vast quantities of dark energy and dark matter? Does anyone know what either of these are? Many of the developments in cosmology can be told without mathematics, and very little math will be used in the course.

The course meets four times per week.

Spring Elective: Modern Physics

Course Number: 1576

Credit: 1/3

Prerequisite: Chemistry

What is quantum mechanics? What is relativity? What are quarks? What are gluons? How did Einstein describe gravity? What is this Higgs boson, and what does it do, if anything? How does superconductivity work? What on earth is string theory about? These are some of the topics that we'll try to tackle with a minimum of mathematics, in a descriptive and qualitative manner. The students will help decide what topics we'll cover.

The course meets four times per week.

Fall Elective: Evolution

Course Number: 1588

Credit: 1/3

Prerequisite: Chemistry

This course will focus on the processes of evolution and the patterns they generate in the earth's diverse ecosystems. One goal is to develop a primary source approach to, and scientific way, of thinking about evolution. This will allow students to access the most fundamental techniques to communicating complex and important material. The course will explore explanations for earth's biodiversity and for the apparent "fit" of organisms to their environment. Topics covered include elementary population genetics, the theory of evolution by natural selection, concepts of fitness and adaptation, genetic and developmental bases of evolutionary change, modes of speciation, molecular evolution, principles of systematic biology, paleontology and macroevolutionary trends in evolution and extinction. In addition, this course will explore evolution from a computational and modeling perspective. Students will access and process real data in order to see evolutionary patterns and outcomes. In the late twentieth century, Theodosius Dobzhansky described the importance of evolution most succinctly when he said that "nothing in biology makes sense except in the light of evolution." The intent of this class will be to provide the proper grounding to appreciate Dobzhansky's statement.

The course meets four times per week.

Winter Elective: Biomedical Ethics

Course Number: 1582

Credit: 1/3

Prerequisite: Chemistry

This course will focus on discussion of the ethical issues surrounding modern biological research and applications. We will discuss developing medical technology and investigate the possible benefits and consequences. Topics may include genetic engineering and gene therapy, cloning,

euthanasia, abortion, agricultural biotechnology, organ transplantation, aging research, and the benefits and abuses of human experimentation.

The course meets four times per week.

Spring Elective: Environmental Science

Course Number: 1583

Credit: 1/3

Prerequisite: Chemistry

Environmental science explores the diversity of organisms, populations, communities, and ecosystems on Earth. We will study the connections and interdependence of living things, as well as the interaction of living systems with the abiotic features of our world. We will also discuss the impact of human activities on the environment, including climate change.

The course meets four times per week.

PLEASE NOTE: Completion of three of the special topic quarter-long electives fulfills the third-year graduation requirement for Science.

World Languages

Philosophy & Objectives

The World Language Department seeks to foster an attitude of openness and an appreciation of language, culture, and history; to empower students to function effectively and appropriately in another language; to instill a disciplined and serious attitude toward language learning; and to encourage awareness of the individual process of language acquisition.

The high school graduation requirement for World Languages is two consecutive years of study in one of the following languages: French, German, Latin, Mandarin Chinese, Spanish, or Spanish for Heritage Speakers.

Students who perform consistently well in the two-year sequence of non-heritage languages can expect to gain a sound foundation in grammar and the ability to function at an elementary level in the basic language skills. However, we encourage students to continue their study beyond the requirement in order to develop real proficiency. Indeed, most students continue for four years, and many take more than one language. Students are exposed to culture and gain proficiency in the language in a variety of ways, and instruction focuses on the four basic language skills of speaking, listening, reading, and writing, although listening and speaking are not as prominent in Latin classes.

Apart from Spanish for Heritage Speakers, our curriculum is designed for non-heritage language learners, so we require students to select a language other than that spoken in the home to fulfill the graduation requirement. However, heritage language learners may take advanced courses as electives, to hone their reading and writing skills and to prepare for the AP exam.

Placement, Advancement, Acceleration

New students may start a new language or take a placement exam in the spring to determine the most suitable level of study. Continuing students may start a new language in high school (Level 1) or continue with their middle school language (Level 3). If they choose to continue with their middle school language, they are placed by their eighth grade language teacher in either the regular or advanced level based on their middle school performance.

A student wishing to accelerate or to move from the regular track into the advanced track must: 1) have the written recommendation of the current teacher; 2) have a final grade of A in the current class; 3) complete summer work as outlined by the teacher; 4) pass a written and oral placement exam with a score of 85% or higher. Placement exams are administered in late August.

A student who has received the written recommendation of the current teacher to advance may register for the advanced level course. If the student does not meet all requirements by the end of summer, he or she will be removed from the advanced course.

Electives

We offer three electives: Sprache in Bild und Wort, a German film class for students with some experience in the language; Classical Greek; and Ancient Greek Performance & Competition, a literature-in-translation seminar.

All courses are offered, provided there is sufficient enrollment or unless otherwise indicated.

Exchange, Immersion and Travel Opportunities

We are committed to having as many students as possible take advantage of our travel programs. In some instances, scholarships and aid are available to help defray the costs.

The Chinese Program

The Chinese Exchange hosts Chinese students for two weeks in January and then takes Lab students to China to visit our partner school, RDFZ, for two weeks over spring break. Cost of the program is approximately \$3000 and includes airfare, lodging, excursions, all meals, and ground transportation. Contact: Xiaoli Zhou xzhou@ucls.uchicago.edu

The French Program

The French program offers two different exchange/travel opportunities. The first takes students to Paris for a week in the spring and then to another city (Besançon, Lyon, Tours or La Rochelle) for a family stay. Cost of the trip is about \$4000 and includes airfare, lodging, excursions, and ground transportation. Lab students then host their counterparts in October–November. Contact: Suzanne Baum sbaum@ucls.uchicago.edu

The Eliade Scholarship includes a four-week homestay in La Rochelle in March–April; students host their French partners in October. Students must apply for this scholarship, which covers the cost of airfare. Contact: Catherine Collet-Jarard ccollet@ucls.uchicago.edu

The German Program

In this program, students travel to Stuttgart in June for three weeks to stay with host families and attend classes at our partner school. Lab students then host their partners for two weeks in October. Total cost of the exchange is \$2400, which includes airfare, travel insurance, transportation and all excursions. Additional scholarships are available to help defray the cost of airfare. Contact: Susanne Pralle spralle@ucls.uchicago.edu

The Latin & Greek Program

This program offers student trips to Rome and Greece during spring break in alternating years. Students visit Rome (2015, 2019) or Greece (2017, 2021) for nine days. Total cost of the trip is about \$4300 and includes airfare, hotels, ground transportation, breakfast, dinner and all excursions. The Greece and Rome trips are open to all students, regardless of their language of study. Contact: Frances Spaltro fspaltr@ucls.uchicago.edu

The Spanish Program

In this program, students are offered a variety of exchanges to reflect the diversity of the Spanish-speaking world; these trips alternate years among Gijon in Spain, Buenos Aires in

Argentina, and Costa Rica. The June exchanges to Spain and Argentina include two-week homestays; the trip to Spain includes a week of travel. Costs are about \$3700 and include airfare, lodging, and meals for nights not on homestay, transportation, and excursions. The partners from Spain and Argentina arrive at Lab in September. The June exchange to Costa Rica includes a week of travel first, then a family stay, and service learning. The students from Costa Rica visit Lab in January–February. The costs for this trip are about \$2500 and include airfare, lodging, and meals for nights not on homestay, transportation, and excursions. Contacts: Laura Damer ldamer@ucls.uchicago.edu and Dinah D’Antoni ddantoni@ucls.uchicago.edu

Chinese

Chinese 1

Course Number: 1290

Credit: 1

Prerequisite: None

This course is intended for students with no previous experience in Mandarin Chinese. It will focus on basic everyday Chinese speaking and listening, reading, typing via pinyin system, and writing basic and high frequency Chinese characters of fewer strokes. The special emphasis will be on the differentiation of five different tones and on identifying Chinese radicals and their meanings. Chinese art, history, and culture related to the textbook will also be discussed.

Chinese 2

Course Number: 1291

Credit: 1

Prerequisite: Successful completion of Chinese 1 or teacher recommendation

The course continues the development of all the skills acquired in Chinese 1. The special emphasis will be on practicing writing high frequency Chinese characters of more strokes, learning how to consult the dictionary through the use of strokes counting skills and/or the knowledge about radicals, and on further accuracy in the pronunciation of tones in the context of sentences and paragraphs, and better fluency in conversations about everyday situations. The grammar will focus on sentence patterns, differences in sentence orders, and certain prepositions. In addition to the textbook, related topics on Chinese art, history, and culture will be discussed.

Chinese 3

Course Number: 1292

Credit: 1

Prerequisite: Successful completion of Chinese 2 or teacher recommendation

This course will continue work on grammar study and structure, vocabulary skills, dictionary skills, composition writing and organization, oral comprehension, and proficiency. The main focus is to enable students to engage in extended discussions in a wider range of contexts. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course.

Chinese 3 Advanced

Course Number: 1294

Credit: 1

Prerequisite: Successful completion of Chinese 2 *and* teacher recommendation

In this course, there will be a more intense, accelerated grammar study, more emphasis on composition skills, and vocabulary acquisition. Oral comprehension and proficiency will be stressed. Readings will be from varied sources of the Chinese-speaking world. Students are expected to finish all classwork in Chinese characters. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course. Mandarin Chinese will be the language of instruction.

Chinese 4

Course Number: 1293

Credit: 1

Prerequisite: Successful completion of Chinese 3 or teacher recommendation

The course continues the development of all the skills acquired in Chinese 3. High frequency characters, components of a character, five different tones, and stroke order will be emphasized. Students will work on using sophisticated sentence patterns to express opinions on topics such as important news, daily life, historical events, and social issues. Quantifier words and composition will be emphasized.

Chinese 4 Advanced

Course Number: 1295

Credit: 1

Prerequisite: Successful completion of Chinese 3A or teacher recommendation

This course continues the development of all the skills acquired in Chinese 3A. Vocabulary and grammatical structures will be expanded at an accelerated rate. Students will work on using sophisticated sentence patterns to express opinions through conversations and compositions. Modern Chinese literature and other authentic cultural texts will be introduced in the course.

Chinese 5

Course Number: 1296

Credit: 1

Prerequisite: Successful completion of Chinese 4 or teacher recommendation

This course continues the development of all the skills acquired in Chinese 4. Students will work on higher levels of oral proficiency, more complex grammatical concepts and longer essay writing. The course will challenge the students' reading skills through the study of modern Chinese literature, newspaper and magazine articles as well as other cultural texts.

Chinese 5 Advanced

Course Number: 1297

Credit: 1

Prerequisite: Successful completion of Chinese 4A or teacher recommendation

The course continues the development of all the skills acquired in Chinese 4A. Vocabulary and grammatical structures will be expanded at an accelerated rate. Students will continue to work toward using increasingly sophisticated patterns to express opinions through conversations and compositions and by exposure to a variety of authentic cultural texts.

Chinese 6

Course Number: 1298

Credit: 1

Prerequisite: Successful completion of Chinese 5 or teacher recommendation

The course refines and expands students' oral, aural, reading and writing skills in Chinese within thematically organized cultural units.

AP Chinese [AP Chinese Language and Culture]

Course Number: 1299

Credit: 1

Prerequisite: Successful completion of Chinese 5A or teacher recommendation

This course will continue the work of Chinese 5 Advanced. Increasing emphasis will be placed upon preparation for the AP Chinese language exam, with exercises and activities based upon it.

French

French 1

Course Number: 1304

Credit: 1

Prerequisite: None

This course is intended for students with no previous experience in French. It focuses on the formation of good linguistic habits (understanding, speaking, reading, and writing) through communicative practice. Supplementary materials include: short readings, recordings and videos by native speakers, and an exercise book stressing writing and application of basic points of grammar.

French 2

Course Number: 1306

Credit: 1

Prerequisite: Successful completion of French 1 or teacher recommendation

This course continues the development of the skills introduced in the first-year course: listening, speaking, reading, and writing, but at a more advanced level. Conversation and accuracy in writing are emphasized. A reader with selections focusing on francophone culture, vocabulary building, and grammar may be used.

French 3

Course Number: 1307

Credit: 1

Prerequisite: Successful completion of French 2 or teacher recommendation

This course will progress from an emphasis on imitation, retention, and simple variation to a broader set of skills of aural and reading comprehension. Students will work on vocabulary from specific contexts and vocabulary-building skills. Accuracy in writing will be emphasized. The geography, customs, and daily life of France and francophone countries will be studied.

French 3 Advanced

Course Number: 1308

Credit: 1

Prerequisite: Successful completion of French 2 *and* teacher recommendation

The course will include a review of grammatical structures, emphasis on vocabulary accretion, and on working toward "freer" oral and written expression. Readings will be from a wide variety

of sources (cultural, the press, literary). Life in France and francophone countries will be studied in further detail.

French 4

Course Number: 1309

Credit: 1

Prerequisite: Successful completion of French 3 or teacher recommendation

This course will continue to focus on all language skills at a more advanced level. It will include work on grammar and vocabulary and longer reading selections. Accuracy in writing will be emphasized. The culture and history of francophone countries will be studied.

French 4 Advanced

Course Number: 1310

Credit: 1

Prerequisite: Successful completion of French 3A or teacher recommendation

This course continues to develop speaking fluency, aural comprehension, reading and writing skills. Grammatical concepts are reviewed and expanded. Literary and cultural texts are read and discussed.

French 5

Course Number: 1313

Credit: 1

Prerequisite: Successful completion of French 4 or teacher recommendation

Grammar and vocabulary will be reviewed and expanded. Oral proficiency and reading skills will be emphasized. Much of the supplementary vocabulary, as well as the readings, conversation topics, and composition work will reflect the skills of the class members.

French 5 Advanced

Course Number: 1314

Credit: 1

Prerequisite: Successful completion of French 4A or teacher recommendation

This course will continue the work of French 4 Advanced with increasing difficulty of the material, both oral and written. It will begin to prepare the students for the French AP class. The course will include a thorough, in-depth review of grammar, the introduction of new grammatical structures, and an emphasis on reading longer passages to include literary and popular texts.

French 6: The Francophone World

Course Number: 1315

Credit: 1

Prerequisite: Successful completion of French 5 or teacher recommendation

This course refines and expands students' oral, aural, reading and writing skills in French within thematically organized cultural units. Students will strengthen the grammatical concepts they have learned in analyzing and reflecting on French-language texts and media. Units are designed for students to employ critical thinking when reflecting on cultural topics and current events relevant to the francophone world. The class will be conducted in French.

AP French [AP French Language and Culture]

Course Number: 1317

Credit: 1

Prerequisite: Successful completion of French 5A or teacher recommendation

This course will continue the work of French 5 Advanced. Increasing emphasis will be placed on preparation for the AP French language exam, with exercises and activities based upon it.

Students will do the following:

- > Readings: various types which may include French literature, French popular literature, reference works and current French periodicals
- > Grammar: an in-depth grammar review concentrating on difficult constructions (le subjonctif, les pronoms, le participe présent...)
- > French culture and civilization: these will be studied using a variety of sources.
- > Writing: extensive training in the organization and writing of compositions
- > Oral communication skills: the ability to express ideas accurately and resourcefully, both orally and in writing, with reasonable fluency
- > Aural/oral comprehension: The ability to comprehend long spoken passages in French and to answer questions based on them, both orally and in writing

German

German 1

Course Number: 1320

Credit: 1

Prerequisite: None

In this beginning course, the student is trained in:

- > Aural comprehension: understanding simple spoken German
- > Oral facility: speaking simple German with proper pronunciation and sentence structure
- > Grammar: writing simple translations from English into German
- > Reading: students explore a wide range of simple German texts including short stories by well-known German authors, excerpts from novels and novellas, poetry, cartoons, advertisement, and numerous realia, all of which serve to enhance the student's reading skills while deepening his/her understanding of German culture.

A grammar text is used throughout the year providing the student with a solid foundation of German language structure. An important aspect of this course is the development of a personalized language learning method.

German 3

Course Number: 1322

Credit: 1

Prerequisite: Teacher recommendation

German 3 builds upon the foundation laid by the Middle School German curricula. The course aims to further increase the student's facility in the four language skills: listening, speaking, reading, and writing. Readings will cover a variety of genre such as age-appropriate German magazines, graded readers, and detective stories. Cultural components include German popular culture, daily life in Germany, foods, and German schools. Students expand their knowledge of the German language through the systematic study of grammar focusing on verbs tenses, modal verbs, word order, case, and prepositions.

German 4

Course Number: 1323

Credit: 1

Prerequisite: Successful completion of German 3 or teacher recommendation

German 4 builds upon the foundation laid by German 3 and aims to further increase the student's facility in the four language skills: listening, speaking, reading, and writing. Written expression and reading comprehension are expanded through a continued, challenging study of German and

English grammar. Grammar units will include such points as idiomatic use of time expressions, subordinating and coordinating conjunctions, reflexive verbs, comparative and superlative, and recognition of the passive voice. Editorial skills will be stressed. Listening comprehension and speaking skills will be sharpened through formal presentation skills for oral presentations, role-playing, and class discussion. Cultural components include twentieth century short prose and related cultural background, contemporary German film, television programming for children, and current events.

German 5

Course Number: 1324

Credit: 1

Prerequisite: Successful completion of German 4 or teacher recommendation

German 5 reinforces the high school curricula of German 3 and German 4. The course engages in a comprehensive and systematic review of German grammar including the case and declension systems, prepositions, adjectives and verbs in the present, simple past, past perfect and future tenses, and the idiomatic use of these items. Listening and speaking skills will be honed through the use of authentic materials from the German press available online as well as thorough in-depth classroom discussion. The course aims to challenge the student's reading skills and vocabulary through the study of authentic German texts including such items as the Grimm's fairy tales, German newspaper and magazine articles, and continued readings in twentieth century German literature. Writing in the target language will be developed through weekly essays, including literary analysis of fairy tales, summary, and opinion papers based on articles concerning current events and other topics as needed. Cultural components include German fairy tales, an introduction to German politics and current events from the German perspective, German film. *Deutsch macht absolut Spaß!*

AP German [AP German Language and Culture]

Course Number: 1325

Credit: 1

Prerequisite: Successful completion of German 5 or teacher recommendation

AP German prepares students to take the German Advanced Placement Exam. The course reinforces and completes comprehensive and systematic review of German grammar begun in German 5 and includes the subjunctive II, the future perfect, passive voice, verb prefixes, the use of flavoring particles, the use of prepositions as verbal complements, and the idiomatic use of these items. Listening and speaking skills will be honed through the use of authentic materials from the German press available online as well as through in-depth classroom discussion of the course reading material. The course aims to challenge the student's reading skills and vocabulary through the study of authentic German texts including such items as Ludwig Thoma's *Lausbubengeschichten*, works from Kafka, and the novel *Damals war es Friedrich*. The course aims to continue an investigation of current events and contemporary German culture through readings of German newspaper and magazine articles. Writing in the target language will be developed through weekly essays, including literary analysis, summary and opinion papers based

on the course readings, and other topics as needed. Cultural components include the historical and cultural contextualization of the reading materials. Deutsch macht bis zum Ende Spaß!

Spanish

Spanish 1

Course Number: 1335

Credit: 1

Prerequisite: None

This course is intended for students with no previous experience in Spanish. Emphasis is on understanding spoken Spanish and speaking with correct pronunciation and structure. To develop their listening and speaking skills, students listen to recordings and songs, play games, perform skits, and view videos by native speakers. Students also read short articles and complete thematic projects in Spanish. The textbook contains grammar, vocabulary, cultural readings, and dialogues which form the basis for reading and conversation. A workbook is used to enhance comprehension of grammatical points and to develop writing skills.

Spanish 2

Course Number: 1338

Credit: 1

Prerequisite: Successful completion of Spanish 1 or teacher recommendation

This course continues the development of the skills introduced in the first year including understanding, speaking, reading, and writing, but at a more advanced level. A reader with more complex grammar, vocabulary, and cultural readings may be introduced. Conversation and a greater awareness of Hispanic culture is emphasized.

Spanish 3

Course Number: 1341

Credit: 1

Prerequisite: Successful completion of Spanish 2 or teacher recommendation

This course will continue work on: grammar study and structure, vocabulary skills, dictionary skills, composition writing and organization, and oral comprehension and proficiency. The geography, customs, and daily life of the Spanish-speaking world will be an integral part of the course.

Spanish 3 Advanced

Course Number: 1342

Credit: 1

Prerequisite: Successful completion of Spanish 2 *and* teacher recommendation

In this course, there will be a more intense, accelerated grammar study, more emphasis on composition skills, and vocabulary acquisition. Oral comprehension and proficiency will be stressed. Readings will be from varied sources of the Spanish-speaking world with emphasis on active and passive vocabulary development. Spanish will become the language of instruction.

Spanish 4

Course Number: 1344

Credit: 1

Prerequisite: Successful completion of Spanish 3 or teacher recommendation

This course will continue to work on the development of all language skills at a more advanced level than that of the previous course. It will include a review of grammatical structures, continued work on vocabulary accretion, and readings of short stories. Students will write compositions and work on personal oral expression. Geography, customs, and daily life in the Spanish-speaking world will continue to be studied.

Spanish 4 Advanced

Course Number: 1345

Credit: 1

Prerequisite: Successful completion of Spanish 3A or teacher recommendation

This course will stress proficiency in all language skills with a strong emphasis on grammar. The culture of the Spanish-speaking world will be examined as well as reading from a variety of sources. Literary excerpts will also be studied. Spanish will be the language of instruction.

Spanish 5

Course Number: 1347

Credit: 1

Prerequisite: Successful completion of Spanish 4 or teacher recommendation

This course will continue to review and expand the students' oral, aural, and written skills, and more complex grammatical concepts. New vocabulary will be introduced. Students will continue reading and discussing literary and cultural texts. Outside resources, such as newspapers and magazines, may also be used to highlight discussions of political, social, and cultural issues.

Spanish 5 Advanced

Course Number: 1348

Credit: 1

Prerequisite: Successful completion of Spanish 4A or teacher recommendation

This course will continue the work of Spanish 4 Advanced with increasing difficulty of the material, both oral and written. It will begin to prepare the students for the Spanish AP class. A thorough review of grammar will be done, and an emphasis will be placed on reading longer passages to include both popular and literary texts.

Spanish 6: Explorations In Culture

Course Number: 1350

Credit: 1

Prerequisite: Successful completion of Spanish 5 or teacher recommendation

This course refines and expands students' oral, aural, reading and writing skills in Spanish within thematically organized cultural units. Students will study and apply more complex grammatical concepts in analyzing and reflecting on Spanish-language texts and media. Units are designed for students to employ critical thinking when reflecting on cultural topics relevant to the Hispanic world. The class will be conducted in Spanish.

AP Spanish [AP Spanish Language and Culture]

Course Number: 1353

Credit: 1

Prerequisite: Successful completion of Spanish 5A or teacher recommendation

This course will continue the work of Spanish 5 Advanced. Increasing emphasis will be placed on preparation for the AP Spanish language exam, with exercises and activities based upon it.

The course will consist of the following:

- > Readings: a variety of readings from Spanish and Latin American literature and periodicals from the Spanish-speaking world
- > Grammar: a comprehensive review of complex grammatical structures
- > Hispanic culture: a study of Hispanic culture through a variety of readings and other sources
- > Writing: preparation and study of written expression in Spanish integrating new grammatical structures and vocabulary
- > Oral communicationskills: the ability to express ideas accurately and resourcefully both orally and in writing with reasonable fluency
- > Aural/oral comprehension: the ability to comprehend long spoken passages in Spanish and to answer questions based on them, both orally and in writing

Spanish for Heritage Speakers

Course Number: 1356

Credit: 1

Prerequisite: Teacher interview and placement test.

Designed for students who use Spanish with family members and are comfortable speaking and hearing the language, this course aims to support the diverse needs of heritage speakers, e.g., developing literacy, vocabulary acquisition for specialized areas, writing mechanics, and use of register in oral and written communication. The curriculum will address student needs as assessed by the teacher. Content will comprise cultural topics, including but not limited to: cuisine, sports, literature, music, dance, politics, geography, history and linguistics.

This course is open to all students, from grades 9–12, and two consecutive years may be used to fulfill the graduation requirement.

Intensive Spanish

Course Number: 1355

Credit: 1

Prerequisite: Previous experience in a language other than Spanish, junior/senior standing and completion of language requirement.

This course is limited to juniors and seniors with previous foreign language experience who have already completed their language requirement. It is designed to give these upperclassmen an opportunity to complete two years of work in Spanish in one year, thus enabling them to be better prepared for college language courses and/or to go into Spanish 3 or 3A the following year. The course will concentrate on all four skill areas: listening, speaking, reading, and writing. The emphasis will be on an active use of the language by the teacher and the student. Spanish will gradually become the language of instruction.

This course will be offered during course registration time and alternates annually with Intensive French.

Latin

The major objectives of the introductory sequence are:

- > to teach comprehension of the Latin language through practice in reading
- > to develop, through these readings, the students' understanding of the social and political history of the Romans, particularly during the first century C.E.
- > to heighten the students' awareness of how language functions, utilizing a basically inductive approach to grammar and a contrastive analysis of the grammatical structures of English and Latin
- > to help students increase their English (and Romance language) vocabularies through attention to principles of word formation, derivation, etc.

Latin 1

Course Number: 1360

Credit: 1

Prerequisite: None

In this course students begin to learn how to read and write Latin. The course introduces basic grammatical features of the language and teaches students how to focus on individual structural signals that indicate the function of words in sentences. Students acquire this grammatical knowledge along with a foundational vocabulary through immersive practice in reading and writing. These readings also serve as an introduction to daily life in the Roman world.

Latin 2

Course Number: 1365

Credit: 1

Prerequisite: Satisfactory completion of Latin 1 or teacher recommendation; this course may be taken through SummerLab 2018 for credit--please see SummerLab section for more information.

Through continued immersive reading and writing, by the end of this course students will have learned most of the basic grammar and have acquired a vocabulary of approximately 1,800 words. This will allow them to read and study Latin literature in the original language in Latin 3 and Latin 4. Additionally, the students continue to study the daily life of the ancient Romans and to expand their English vocabularies through the study of derivatives.

Latin 3

Course Number: 1366

Credit: 1

Prerequisite: Satisfactory completion of Latin 2 or teacher recommendation

In this course students will complete their study of basic Latin grammar and begin to read primary texts in prose and poetry that will bring them closer to the history, culture, and everyday life of the Roman world. The course readings will be determined by the instructor each year, and may focus on specific authors, literary genres, themes, historical periods, etc. The prose of authors such as Caesar, Cicero, and Pliny, and the poetry of Vergil, Ovid, and Horace will introduce advanced grammar, and the students will learn to use the lexical and grammatical resources necessary to advanced Latin study.

Latin 4

Course Number: 1367

Credit: 1

Prerequisite: Satisfactory completion of Latin 3 or teacher recommendation

In this advanced course, students will continue to read original Latin authors of prose and poetry as they deepen their knowledge of the Latin language and broaden their understanding of Roman culture. They will master the use of Latin grammars and lexicons; they will become familiar with advanced Latin research and lexical tools such as *Thesaurus Linguae Latinae*; and they will engage the texts they read thoughtfully and critically through papers and projects. The texts will be determined by the instructor each year, and may include a survey of prose or poetry, or they may focus on a particular author, period, or theme.

World Language Electives

Sprache in Bild und Wort (German in Pictures and Words)

Course Number: 1329

Credit: 1

Prerequisite: All students with some knowledge of German are welcome to enroll. However, the course may not be taken to fulfill the World Language requirement.

Films and readings (which may include newspaper and magazine articles) will serve as the basis for classroom discussion in this German course which is meant for enrichment and enjoyment. Students in the course will decide with the teacher which contemporary films will be viewed. We will attempt to select films that are also available in book form or have English subtitles.

This course is ideal for students who have fulfilled their language requirement and want to maintain their language skills through listening, or for those students who speak German at home, or have an interest in learning a little German informally.

Non-Language Elective

Ancient Greek Performance and Competition

Course Number: 1374

Credit: 1

Prerequisite: Junior or senior standing

In this year-long course students will examine ancient Greek poetry, athletics, religion, drama, and citizenship as expressed in competitive performance. This course requires close reading of primary and secondary texts. It is a discussion course, and assessment is based on preparation, participation, one-page essays, and presentations.

Fall Quarter: Epic & Oral Tradition

Students will formulate a basic picture of archaic Greek life prior to the emergence of the city-state, and in that context examine Greek epic and its legacy. Students will read Hesiod's *Works & Days* and *Theogony*, the *Homeric Hymns*, and the *Iliad* and *Odyssey*.

Winter Quarter: Athenian Drama, Democracy, and Imperialism

Students will study the Athenian origins and political contexts of tragedy and comedy, and how they reflect and expression the tensions between democratic ideals and imperialistic practices. We will read plays by Aeschylus, Sophocles, Euripides, and Aristophanes.

Spring Quarter: Sanctuaries, Athletics & Glory

This quarter focuses on the sanctuaries that hosted the athletic and musical competitions, with special focus on Olympia and Delphi. Art, architecture, archaeology, and Pindar's victory *Odes* will underscore the games' political importance to their host regions, to the larger Greek world, and to the individual competitors and their cities.

Greek

Classical Greek 1-2

Course Number: 1378

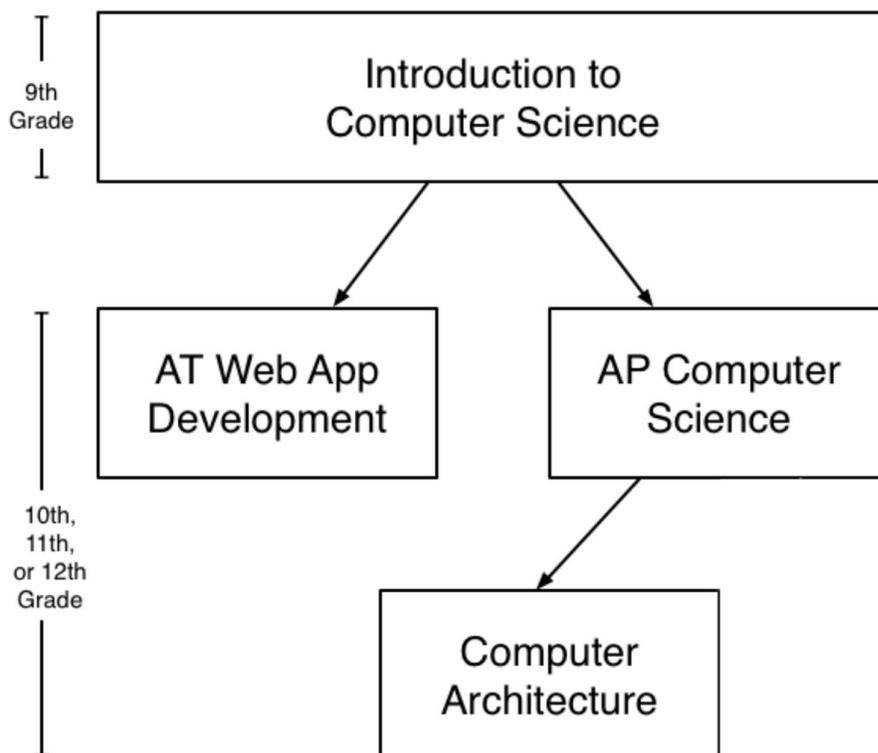
Credit: 1

Prerequisite: This course is open to juniors, and seniors; exceptions must be approved by the World Language Department and the High School Principal. This is a mixed level course and may be repeated for credit.

The goal of this course is to equip students with the knowledge and skills necessary to pursue intermediate to advanced study in college and ultimately read classical Greek authors in the original language. In the first year, the aim is for the students to acquire a foundational vocabulary and to master the inflections of nouns, adjectives, and verbs in order to read sentences and short passages adapted from Greek literature. Students who continue their study of Greek for a second year will study topics of advanced syntax and continue to read progressively more complex sentences and passages. The course will also explore English derivatives of Greek vocabulary and major aspects of Greek civilization.

This course is an elective and **does not fulfill** the World Language requirement.

Computer Science



Overview of the Program

Every University High School student must successfully complete a half credit of computer science. Students will fulfill the requirement through the half-credit Introduction to Computer Science course in their 9th grade year.

The flowchart shows different paths a student may take through the Computer Science program after 9th grade. Students interested in pursuing computer science further may take AP Computer Science or AT Web Application Development. These second-level courses are both rigorous and prepare students for doing real work in computing disciplines.

AT Web Application Development

Students will have the opportunity to develop a variety of web-based software applications including 3D graphics programming, data manipulation and analysis, network game development, and remote sensing and control of physical devices. The curriculum is aimed at developing an appreciation for and understanding of social and ethical issues.

AP Computer Science

This in-depth introduction to programming in Java prepares students for the Advanced Placement Computer Science A Exam. The course is meant to parallel an equivalent college programming course often required for scientists and engineers. Students interested in pursuing more advanced courses in Computer Science should consider taking this course.

Computer Architecture

As the department's highest-level offering, this course provides a fantastic breadth to the student's computer science background as it deals with the hardware/software interface. These concepts are fundamental to many modern applications especially with the embedded systems found in most scientific, robotic, and medical equipment.

Introduction to Computer Science (half credit)

Course Number: 1481

Credit: 1/2

Prerequisite: None

This course aims to more deeply explore what computers are and how they work. Students will learn why computers must use zeros and ones to encode all information, how information can be encrypted, how modern networks are organized, and about the history of the World Wide Web. Students will learn how to code and style web pages from scratch. As the course progresses, all student work is "turned in" by adding a web page to one's personal portfolio. Students will also gain an appreciation for computational solutions to problems by learning how to write computer programs in a variety of contexts such as programming robots to dance or creating and manipulating digital images.

This half-credit course meets two days a week over the entire year. Much of the work for the course can be completed in class, but students will be expected to do work at home or on school computers outside of class.

Summer School Option

Introduction to Computer Science is frequently offered as an intensive six-week course in SummerLab. The SummerLab version of the course covers the same material as the year-long version, with little to no homework, and fulfills the graduation requirement. For more information, and to see if the course is being offered this summer click to <https://www.ucls.uchicago.edu/summer-lab/programs/summer-school>.

AT Web Application Development

Course Number: 1492

Credit: 1

Prerequisite: Introduction to Computer Science or permission of the department

AT Web Application Development focuses on creativity as students design and create a variety of web-based software applications, while exploring a range of computer science concepts and

issues. During the course students will develop projects both individually and collaboratively, as they explore topics in 3D graphics programming, data manipulation and analysis, network game development, and remote sensing and control of physical devices. Students will develop their computer science skills in Web Application Development while examining trends in the industry and learning about a variety of contextual social and ethical issues within today's society.

AP Computer Science [AP Computer Science A]

Course Number: 1490

Credit: 1

Prerequisite: B+ or better in Introduction to Computer Science or permission of the Department

AP Computer Science is an in-depth introduction to programming in Java which prepares students for the Advanced Placement Computer Science A Exam. The course is meant to parallel an equivalent college programming course often required for scientists and engineers. It builds on the basic control structures learned in the Introduction to Computer Science course and adds advanced programming techniques such as object-oriented programming, recursion, and a focus on program efficiency. Students will be introduced to basic structures for holding large amounts of data and the implementation of traditional algorithms. In addition, students will learn how to create graphical user interfaces using JavaFX. The course culminates in a long-term group project that takes an idea all the way to a polished software product. Students interested in pursuing more advanced courses in Computer Science should consider taking this course.

Computer Architecture

Course Number: 1491

Credit: 1

Prerequisite: AP Computer Science or permission of the Department

In this hands-on course, students build a general-purpose computer system—hardware and software—from the ground up. Beginning with the simplest of logic gates, they build combinational and sequential circuits, and then integrate them into a computer platform capable of running machine language programs. Students then write an assembler, virtual machine language translator, and compiler so that the computer can run software written in an object-oriented programming language. They finish the year by writing several modules needed for completing the operating system implementation.

During this course, students experience many cross-section views of the field of computer science, from the bare-bone details of switching circuits to the high-level abstraction of object-based software design.

Text: *The Elements of Computing Systems: Building a Modern Computer from First Principles* by Nisan and Schocken

Fine Arts

The visual and dramatic arts play a vital role in education because they are a basic and powerful language for expressing and connecting ideas and feelings. The arts encourage us to take chances, to see with our own eyes, and to speak our own words. Students may choose from a variety of courses that stimulate the ability to see, to express, and to invent.

Courses in the Visual Arts

- > Studio Art Practices
- > Mixed-Media Art
- > Advanced Drawing/Painting [AP Studio Art:Drawing]
- > Sculpture
- > Beginning Photography
- > Advanced Photography [AP Studio Art: 2D Design]
- > Filmmaking
- > Art History
- > Design Communication
- > Independent Study in Fine Arts

Courses in the Dramatic Arts

- > Acting Studio
- > Drama
- > Technical Theatre and Production
- > Alternative Credit in Drama
- > Directing

Fine Arts Credits

Students are required to take a minimum of one credit in Fine Arts. Beginning classes that meet the basic graduation requirement for Fine Arts are: Acting Studio, Studio Art Practices, Beginning Photography, Filmmaking, Sculpture, Mixed-Media Art, Art History, and Design Communication.

During the course request process, students must indicate their first and second choice of art classes. Although we will make every attempt to assign students to their first choices, in order for us to achieve a numerical balance among the classes and thereby give all students the same opportunities within their Art classes, students will sometimes get their second choice.

Transfer students wishing to enter advanced art courses must submit a portfolio of their creative work to the department for approval, prior to enrollment.

All courses can be repeated, during regularly scheduled class time and as space allows, except for Beginning Photography and Acting Studio.

Seniors who need one full credit for graduation from the Fine Arts course in which they are enrolled must continue to attend the regularly scheduled class until the end of the year in order to receive one full credit for graduation. Seniors who go on to May Project who have satisfactorily completed their work but do not attend class will receive 7/8 credit for the course.

Students may not enter Fine Arts courses after the fifth class meeting. The exception to this are the Acting Studio and Drama courses, which allow entry until the ninth class meeting.

Studio Art Practices

Course Number: 1705

Credit: 1

Prerequisite: None

Studio Art Practices is a comprehensive introductory course in which students are given an opportunity to develop skills in drawing, painting, and sculpture using a variety of media. As they are encouraged to refine their techniques, they will also be encouraged to welcome surprises that take them beyond their original goals.

During the year we will visit one museum or gallery.

Students may not enroll later than the fifth class meeting.

Mixed-Media Art

Course Number: 1710

Credit: 1

Prerequisite: None

This course is designed for the creatively curious student who is ready to move beyond the guided assignments of the Studio Art Practices course and develop thematic projects of their own design.

In this course students are introduced to a variety of art materials and art-making processes including but not limited to alternative drawing and painting processes, printing making, conceptual installation, and a variety of digital applications.

Students are expected to develop their own ideas through exploration and collaboration, creative risk-taking, and engaging their peers in the formal and informal critique process. Students are expected to develop a body of artwork that explores conceptual and formal issues that are relevant to their personal experience and responsive to the world around them. Students may repeat this course.

During the year students will have the opportunity to visit galleries, museums, and art studios.

Advanced Drawing/Painting [AP Studio Art: Drawing]

Course Number: 1722

Credit: 1

Prerequisite: Studio Art 1 or Mixed Media

This course is designed for students who are ready to focus on individualized work. Traditional and contemporary concerns and techniques of painting, drawing, mixed-media art, and sculpture are studied. The purpose is to develop ideas and skills that will bring about a better understanding of art and enhance the personal visual statements of the student. Regular group critiques enable students to be more articulate and thoughtful about their projects and foster a mutually productive class dynamic. Assembling an art portfolio for college applications, writing an artist statement, and conducting art-related college interviews are an important part of the fall quarter curriculum. Rather than being based on talent, assessment is based on commitment, creativity and progress.

Students in this course have the option to submit their portfolio to the College Board for an AP score.

Beginning Photography

Course Number: 1730

Credit: 1

Prerequisite: None

Students will use a variety of tools in this hands-on overview photographic studio class, in order to create a unique portfolio for each quarter. The course will be broken up into three distinct sections: fall–Darkroom Discovery, winter–Digital Toolbox, spring–The Camera and beyond. Students will begin the year by studying the traditional skills of darkroom photography and basic camera settings. Then Students will begin a thorough investigation of the digital world, learning how to work with all the aspects of their own cameras, from histograms to white balance and resolution. This year-long course will also explore the history of fine art photography from its early days to the digital age.

Students must have a working DSLR camera with an 8G memory card, a 2G flash drive, a camera bag, and a bag for supplies. Students must also have access to a 35mm camera (a small number of class cameras are available for checkout). Students will have an assigned computing station for the year, outfitted for their use. Students will become very familiar with the power and magic of several software image editing tools as well, like Photoshop and Lightroom.

Advanced Photography [AP Studio Art: 2D Design]

Course Number: 1753

Credit: 1 (with option to submit portfolio to AP for college credit)

Prerequisite: Beginning Photography or Photojournalism, or Portfolio Review (Consent of Instructor)

This year-long course is designed for the student with a working knowledge of the photographic process and a general familiarity with their DSLR camera, along with common digital software. Students will engage in an in-depth studio exploration designed to develop a college-ready AP Studio Art-style portfolio. Students are not required to submit their portfolio to AP, but do have that option. Students will investigate a wide range of materials, approaches, and equipment to explore a variety of photographic possibilities including collage, hand colored photos, and photo constructions. Fall quarter will begin with mini explorations into the great themes of photography and art. Winter quarter will be devoted to an in-depth concentration carefully planned and executed by each student. Spring quarter will culminate with final individual and group exhibitions. Contemporary imagery in Fine Art Photography and General Art History will be regularly viewed and discussed so that students develop a strong vocabulary in the language of photo aesthetics. Regular critiques will engage the class as an extended community and help each student to expand and grow his or her own work.

Filmmaking

Course Number: 1735

Credit: 1

Prerequisite: None

This one-year program gives students the all-around filmmaking experience necessary to make their own films. No previous filmmaking experience is required. However, participants must work with self-discipline, energy, and mutual respect as part of teams. The year is divided into three quarters. Students in the program receive hands-on instruction and preparatory production experience. The curriculum integrates intensive study in all the major filmmaking disciplines including cinematography, directing, screenwriting, producing, animation, and editing. They all write, shoot, edit, and direct three of their own short films (including a thesis film). Projects are shot in HD and 4K Cine and edited digitally. An introduction to Film History and Film Theory will also be included.

This one-year course emphasizes hands-on learning. This class is not a theoretical exploration; but a studio-style course made up of practical workshops designed to creatively engage students as quickly as possible. Like other Fine Arts courses, this film class encourages students to take creative risks and find their own voices as visual artists. Students complete the year in filmmaking with skills in all the filmmaking crafts, an enormous amount of pre-production experience, three short films of their own, an expanded awareness of themselves and others, and in particular, a set of skills to work collaboratively. Students' final films are celebrated in a school screening open to cast, crew, friends, family, and invited guests.

Sculpture

Course Number: 1740

Credit: 1

Prerequisite: None

The capacity to develop ideas in three-dimensions is critical to the process of invention and to the understanding of our natural world. The ability to mentally rotate and create three-dimensional forms is essential in the study of Sculpture and of other fields such as Functional Design, Math, and Science. This course is designed as an exploration of the many building methods and techniques within the vast field of Sculpture. Students explore basic construction techniques and gain competence in three-dimensional thinking and hand building skills.

Ideas are initially developed through experimental drawings and discussion; later they are translated to three-dimensional materials. This course will cover: hand building techniques with clay, woodworking, carving, building with found materials, and using a variety of mixed media for surface development. An introduction to low-fire ceramic glazes will also be included. Contemporary Art concepts and the History of Sculpture will be discussed. When appropriate exhibits occur, visits to galleries or museums may be scheduled.

Art History

Course Number: 1751

Credit: 1

Prerequisite: any high school history class

This course is a survey of the history of visual arts and architecture emphasizing understanding and appreciation. The course traces art history from the art of the ancient world to the present. Included is the history of images, objects, and architecture associated with different religions, governments, and the lives of both prominent and ordinary people. Historic trends in philosophy, politics, faith, gender roles, and many other aspects of society are uniquely revealed through great works of art. While there is an emphasis on the western artistic tradition, non-western traditions and recent pan-global trends are also explored. The course is taught in a lecture and discussion format. One or two field trips will be conducted. Some individual field research along with traditional scholarship including reading, writing, note-taking, and researching is required. Students will learn to conduct a formal visual analysis, an interpretive analysis, and a historical analysis when looking at a work of art. By learning to look carefully and thoughtfully, students can hone their visual acuity, perceptivity, and critical thinking skills.

Design Communication

Course Number: 1761

Credit: 1

Prerequisite: Introduction to Computer Science

Personal websites are rapidly replacing traditional resumés in today's job market. Similarly, including an excellent personal website with a college application demonstrates that the applicant already has a sophisticated modern skill set including critical thinking, computational thinking, and design sensibility.

Learn how to create and maintain excellent websites using HTML code and make them look great using CSS code combined with digital imaging software such as Photoshop and Illustrator. In addition to web design, this course explores publication design, logo design, three-dimensional design, and 3D printing. Traditional hands-on projects will help reveal design fundamentals. No software or hardware need be purchased to take this class.

Whether one is trying to sell a product, generate support for a charitable cause, or present a new invention that will save the world, it is increasingly necessary that the conveyance of the ideas be as aesthetically pleasing. This class empowers students by developing the type of visual perceptivity and computer competency needed for effective twenty-first century communication.

Acting Studio

Course Number: 1770

Credit: 1

Prerequisite: None

This first of three-quarters of a beginning acting course is designed to help students discover basic acting techniques. Improvisation, acting orientation sessions, and pantomime work form the basis. Creative thinking is stressed. Movement and body control work is included with some scene work.

The emphasis during second quarter is on the development of vocal and physical characterizations. Working with scene cuttings from different modern plays, students learn a variety of acting methods and techniques. Movement work is continued.

Advanced scene cuttings and monologues are developed in the third quarter with emphasis on the psychological characteristics of different characters. Exploration of comedy techniques is included.

All acting classes may include a field trip each quarter to a play or to different theatres. The students are required to pay for their own tickets and expenditures.

Students must enroll in this course no later than the ninth class meeting.

Drama

Course Number: 1775

Credit: 1

Prerequisite: Acting Studio

This course explores the periods and acting styles found in the works of Shakespeare, the Restoration era, and melodrama. Scene cuttings and monologues will be produced to give the flavor of these periods. The course is designed for the advanced acting student.

The study of different periods and styles of acting will continue in second quarter with scene cuttings and monologues produced from the Realistic, Contemporary, and Absurd periods. Students will also present a program based on the first quarter's work.

The periods and styles of the Theatre of the Absurd and the tragedies and comedies of Greek Theatre will be explored in this course. A production by the students will climax the course's work.

Students must enroll in this course no later than the ninth class meeting.

Technical Theatre and Production

Course Number: 1780

Credit: 1/3 per quarter

Prerequisite: None

A beginning course in theatre, this will be a highly individualized program of study tailored for a beginning set or lighting designer, or a student simply interested in learning about various aspects of theatre production. The course is likewise offered for the advanced technical theatre student wishing to further develop skills in his/her chosen area of study. For the designer, this will be a course in the techniques and methods involved in transferring a printed script into a scenic unit as experienced by an audience. The student will be able to exercise his creative talents while developing an understanding of the theatre technician's job. Drafting tools, scenery equipment, lighting, and sound materials and equipment, water colors, and construction materials for models will be the student's tools.

For the theatre crafts student, the apprentice, master of an area, or the interested beginner the course will afford the opportunity to become familiar with new areas or to further expertise.

Students will develop individual and group projects. Practical work on a production will be required outside of the classroom. Set design, costume design, and sound design will be emphasized.

Students will be able to study advanced scene design and technical problems. There will be an examination of different artists' works. There will be several field trips to Chicago area theatres to study their facilities. Individual projects and practical work will be continued. This course will also emphasize property design, makeup design, and publicity design.

Lighting, lighting design, and theatre management will be areas of emphasis in this course. Functions of stage lighting, familiarity with lighting instruments, methods, and uses of control boards will be stressed. Guidelines for a theatre manager and for a stage manager will be set.

Directing

Course Number: 1785

Credit: 1/3 per quarter

Prerequisite: Consent of the instructor

This course will be an intense study of the concepts, styles, and techniques of directing for the theatre. The format will be lecture/discussion for two hours per week with the rest of the course work to be done outside of meeting time. The main emphasis will be on the development of a director's production book. The full concept will be developed from a full-length play chosen by the student. This will involve research into all related areas: movement, art, music, design, psychological character study, and historical periods. The relationship between all these areas and the finished production will be examined. The student will direct two or three scenes from the play.

This course will meet by arrangement during part of fall and all of winter and spring quarters.

Alternative Credit In Drama

Course Number: 1795

Credit: 1/3 per quarter

Prerequisite: Consent of the instructor

The student in a practical situation may examine technical and production work. All areas of the theatre may be studied intensively: set construction, lighting, costuming, properties, makeup, sound publicity, and stage management, etc.

Music

The study and performance of music is an integral part of education at the Laboratory Schools. From Nursery School through High School, Lab students experience music in a variety of ways. Music plays a vital role in the educational lives of our students and provides a gateway through which they learn different eras, cultures and emotions. Music literacy and knowledge give students another way in which to understand the world, both past and present.

The study of music through performance provides benefits above and beyond the immediate musical exercise, composition, or performance. Singing and playing have been proven to provide significant benefits to brain growth and development in people of all ages, especially children. Music performance and study enable us to be more creative and better able to envision multiple perspectives and solutions.

Students at University High have many avenues available in which to pursue their passion for music. The music department offers performing ensembles, non-performing classes and the opportunity to self-design an Independent Study. Once a student fulfills the required music credit, they are encouraged to remain in their respective ensemble as well as explore elective courses.

Courses that fulfill the music credit requirement:

- > Concert Band
- > Concert Choir
- > U-High Orchestra
- > Explorations in Music
- > Music History

Elective courses offered:

- > Jazz Ensemble
- > Digital Music Production and Composition
- > Advanced Digital Music Production and Composition
- > Music Theory for the 21st Century Musician
- > Bel Canto
- > U-High Chamber Collective
- > Independent Study in Music

Non-Performance Courses

Explorations in Music

Course Number: 1810

Credit: 1

Prerequisite: None

Participants in this course will deepen their appreciation in musical areas they are presently interested in as well as explore areas of music that are unfamiliar. Students will connect with current musical issues in society, explore how they select and listen to music, and express their creativity through music composition.

During the fall quarter students will study the instruments of the symphonic orchestra in depth, learn how to define several genres of music and examine how they are connected to one another.

Winter quarter will focus on sharpening aural skills and critical listening skills. Students will learn about song forms, the "formula for making a hit", as well as delve into controversial issues in music today such as sampling, music streaming, and ticket prices.

During spring quarter the course will cover the fundamentals of music theory, explore electronic music, music composition, and scoring music for film.

Students will travel on various field trips throughout the year, listen to guest speakers, and work together to complete hands-on projects that will explore the world of music, past and present.

This course carries the traditional graded components of homework, quizzes, exams, projects, and presentations. What is paramount for success is daily class participation. No previous formal music training is required.

Music History

Course Number: 1815

Credit: 1

Prerequisite: None

Fall quarter begins our study of classical music, around the year 800 C.E., when music notation was just beginning. Through listening, reading, writing, and discussion, we trace this music through the Medieval, Baroque, and Classical eras. We'll be studying the lives and music of beloved composers including Bach, Handel, Mozart, and Haydn. We'll also delve into the work of lesser known masters such as Machaut, Dufay, Josquin, Hildegard von Bingen, Barbara Strozzi, and others.

Winter quarter takes us into the Romantic era. The music of Beethoven, Schubert, Liszt, Chopin, Tchaikovsky, and others, is some of the most beloved in all of Classical music. We'll explore

techniques these composers employed, and look at the social conditions which helped to nurture their composition and work. Toward the end of the quarter, we shift our focus to the early twentieth century. It was a time of immense change in music and the arts. Composers such as Stravinsky, Schoenberg, Ives, Ruggles, Webern, and Berg, were reshaping the musical landscape and changing the very nature of listening, performance, and composition.

Spring quarter finds us listening to music of the latter half of the twentieth century, and moving on to that of the twenty-first. Mid-twentieth century music is noted for its dissonance and almost lack of concern for the listener. Then beginning in the 1960's and 1970's, composers like Steve Reich and Phillip Glass helped to redirect music back to a more melodic and approachable direction. Electronics and new technologies played a key role, and classical music took on a completely different sound.

We then turn our attention to the two great musical genres founded here in the United States, jazz and blues music. Blues music has influenced popular music in unique ways throughout the world, and many of the great blues artists lived right here in Chicago. We'll follow the beginnings of the blues in the Mississippi Delta and how it traveled northward, along with many other people and ideas, during the Great Migration. Chicago is also important to the history of jazz music, and we'll explore its beginnings in New Orleans, and how it spread north. Time will also be given to country music and the beginning of the recording industry, bluegrass, and others types of roots music. We finish the year with a discussion of rap, hip-hop, and the immense influence this music has had throughout the world.

The ability to read music notation is not a requirement. Class work includes written assessments, writing assignments, and listening assignments. We'll also have a number of in-class guest speakers from various music organizations in Chicago, as well as the University of Chicago.

Music Theory for the 21st Century Musician

Course Number: 1819

Credit: 1

Prerequisite: Completion of required music credit and permission of instructor based on interview and formal assessment

This course is designed for student musicians who wish to further their knowledge of music theory, but in a more practical and hands-on manner than most traditional music theory classes.

Students will become well versed in terminology and notation through exposure to a wide range of music from all time periods. We will cover material such as scales, intervals, clefs, rhythm, form, meter, phrasing, harmonic progressions and aural skills. Students will gain skills necessary to write and think critically about the music they are covering in class, as well as music in everyday life, regardless of genre. Readings, discussion, score study, and guided listening will also form a major part of the class.

Where this class differs from many theory classes is in the practical application. Basic piano keyboard skills and basic guitar skills will be taught and used to give students a way to express and experience the concepts covered in the curriculum. The overall goal of this class is to give students the tools and skills to realize their own musical ideas in whatever format, and whatever style of music they choose.

Digital Music Production and Composition

Course Number: 1830

Credit: 1

Prerequisite: Successful completion of required music credit and permission of instructor.

This course is an excellent choice for students with an interest in learning to use music technology to compose and arrange music in any variety of styles and genres. Consent of the instructor is required.

Dubstep or Classical? House or Hip Hop? Jazz or Pop? Rock or Reggae? It's all good! Students will learn to create music using basic concepts in melody, rhythm, harmony, and form. Music production and notation software will be the vehicle in which students organize the presentation of their works. A strong foundation in music fundamentals and theory will be helpful to maximize enjoyment and benefit in this course.

Advanced Digital Music Production and Composition

Course Number: 1831

Credit: 1

Prerequisite: Completion of required music credit and permission of instructor.

Experienced in music production? Have a background in writing music and want to take your compositions deeper? Perhaps you're an aspiring DJ wanting to master your own music and mixes? This course is ideal for the student with experience in making music with the computer and wanting to take their tracks to the next level. Students will take the foundations learned in Digital Music Production and Composition and explore more advanced music concepts. Topics covered include advanced automation, mixing, mastering, original sound design, MIDI and audio effects processing and studio recording techniques.

Performance Courses

Concert Band

Course Number: 1850

Credit: 1

Prerequisite: Successful completion of Eighth Grade Band and permission of the instructor. An audition/ interview may be required for students who are transferring from another school.

Band is open to students who have successfully completed the equivalent of eighth grade Band. Placement in band is with permission of the instructor. Placement decisions will take into account performing ability on an instrument, student needs, and the instrumentation needs of the ensemble. The goal of this class is to continue to develop music literacy through instrumental technique, sight-reading skills, and elements of music theory. Formal evening concerts are given twice during the academic year and participation in these two performances is a course requirement and a part of the student's grade. Additional performance opportunities may arise at the discretion of the director. Students will also have the opportunity to enhance their musical experience by performing and/or competing in small group and individual settings.

Orchestra

Course Number: 1860

Credit: 1

Prerequisite: Students must demonstrate proficiency on their instrument through an audition and have permission of instructors.

We are dedicated to the performance, study and cultivation of musical artistry. We strive to establish relationships within our Lab community and beyond to increase understanding and respect for human connection. In Orchestra students explore and create the music of our classical past, cultural roots and popular present. We foster the use of technology, as it is vital for the twenty-first century musician.

Students will advance their technique, tone production, intonation, and musical interpretation. From the large ensemble to the small chamber group, every musician develops leadership through cooperation. We channel the excitement, talent, and dreams of our students into a passion-driven learning experience.

Ultimately Orchestra provides the essential foundations for self-expression, concentration, poise, discipline, and collaboration—skills in great demand in almost every aspect of life.

U-High Chamber Collective

Course Number: 1865

Credit: .5

Prerequisite: U-High Orchestra, audition and interview

The U-High Chamber Collective is an advanced string chamber ensemble. It offers an avenue to perform challenging repertoire and connect with other musicians with the same level of technique and dedication.

This course will encompass the development of skills specific to playing in a small ensemble including communication, rehearsal efficiency, and technique. We will study repertoire from a variety of genres and members will develop a deeper sense of chamber music including aspects of historical and cultural implications. Student musicians will be able to reproduce authentic performance styles specific to several musical eras. The Chamber Collective will focus on developing performance opportunities for the ensemble in our community throughout the school year. This schedule of real-world playing opportunities will instill a sense of direction for rehearsals and also cultivate a shared sense of purpose and commitment. The group will meet three times a week by arrangement of director. Attendance at all rehearsals and performances is required.

Concert Choir

Course Number: 1870

Credit: 1

Prerequisite: Consent of instructor based on audition/interview

Concert Choir is open to students who have the desire to sing in a choral ensemble. If this is the student's first year in the choral program at Lab, s/he will need to gain permission of the instructor in order to enroll. Through the study and performance of standard choral literature from a variety of historical periods and styles, the student will sharpen sight-singing, score reading, vocal production and diction skills. Formal evening concerts are given twice during the academic year. Participation in these performances is required and constitute the majority of points in a given quarter.

Bel Canto

Course Number: 1875

Credit: 1

Prerequisite: Completion of or current enrollment in required music credit. Audition.

Bel Canto is an advanced vocal ensemble selected by audition. This course is offered to students who have completed, or who are enrolled in their required music credit. Singers are required to sight read music, and maintain individual harmonies. Bel Canto is the capstone of choral music at U-High, performing approximately ten times each academic year. The ensemble offers choral

music from the Renaissance, Classical, and Romantic eras as well as A Cappella covers from current recording artists. Attendance at all rehearsals and performances is required.

Jazz Ensemble

Course Number: 1880

Credit: 1

Prerequisite: Successful completion of required music credit, and permission of instructor. An audition/interview is required.

Jazz Ensemble is an advanced music performance ensemble that explores many styles, and provides an opportunity for students to find a new level of musical expression and creativity. This class takes the written premise found in classical music, and builds on that by adding the art of improvisation to the overall scope. Styles that will be explored include Jazz, Latin, Rock, R&B, Funk, Pop and Alternative genres. Proficiency in scales, rhythm, technique and tone is essential to maximizing student expression and creativity. Through this course, students will become proficient in jazz scales, chords and stylistic interpretation to better express themselves creatively.

U-High Jazz Ensemble performs at many school and community functions throughout the year. This, in addition to two formal performances, commands a high level of commitment. Participation in all performances is mandatory. Balancing daily practice with other academics is a key component to the success of this ensemble. We guarantee this to be an unforgettable learning experience for the dedicated.

Journalism

The journalism program at University High School is based on learning by experience and self-discovery, appropriate for a school with its roots in the work of John Dewey. Students largely learn about journalism and mass media by being journalists and producing student publications.

Students enrolled in Beginning Journalism focus on introductory units, and they gather news, report and write copy for the student newspaper, the *U-High Midway*. Field trips, guest speakers and assigned reading for enrichment enhance the journalistic writing experience.

Experiences in publishing in the newspaper, online and the yearbook are related in class to mass media. News media and current events become topics of class attention as developments dictate, and students make decisions for coverage of school and community events. Class discussions are devoted to media treatment of large or sensitive developments, to media personalities, and to issues such as equitable treatment, use of social media and ethics of news gathering. The news often determines class content.

Many students come to journalism—and stay with it—for the writing experience it offers, although journalism at University High School is not conceived of as a writing program but a communications program. The most intensive experience in learning-by-doing occurs in the area of writing as each student rewrites each story several times before it is published and as student editors coach the work of reporters. Students work together to develop stories and coverage, enriching the creative experience and making teachers of students. In journalism, consequently, many students who feel (or have been told) they are weak writers find new confidence and discover talents they did not know they have.

But journalism is more than writing. It is also page design, photo and art direction, photo and art creation, construction of the publication through desktop publishing and the interaction of observation, emotion, the written word, and visual messages. It is the creation of a finished public product pulled together for a specific, unforgiving deadline often under hectic circumstances demanding efficient and cooperative large group work respectful of individual talents and decisions.

All these facets, and more, are incorporated into the journalism curriculum against the background of mass media in contemporary society and the foreground of the student's own experience publishing the school yearbook and newspaper both in print and online.

The U-High Journalism program engages the world beyond the classroom—the school community and beyond—through wide distribution of the printed materials and a growing social media and digital presence.

Beginning Journalism

Course Number: 1230

Credit: 1

Prerequisite: None

Beginning Journalism is open to all students at all class levels. Focusing on introductory units in fall quarter, students will gather news, report and write copy for the student newspaper, the *U-High Midway*, and possibly sell ads to finance it. Assignments for the Midway usually require additional time outside class. Additionally, students will use selected readings for enrichment, inspiration and springboard for discussion in class and online. Some of these activities will be short-term, while others will have longer deadlines, allowing students to complete the work around more immediate assignments. By the end of the year students know how to plan, report, write, edit, design and evaluate newspapers, and many find their view of the world has broadened. This course also provides an introduction to desktop publishing, including collaborative editing and designing pages using Adobe InDesign. Students are also exposed to digital and emerging media, including social media.

Advanced Journalism

Course Number: 1240

Credit: 1

Prerequisite: Successful completion of Beginning Journalism

Having completed a year as reporters, writers, and ad sellers, and having learned how to produce, edit, design, and evaluate a newspaper, students advance to planning the *U-High Midway*, deciding its editorial policy, designing pages, editing copy, taking advanced story assignments, writing columns, and directing the paper's business management. This course also offers further experience in desktop publishing, particularly in using graphics and design techniques. Social media and emerging media platforms are also explored and developed. Students use selected readings for enrichment, inspiration, and springboard for discussion. Some of these activities will be short-term, while others will have longer deadlines, allowing students to complete work around more immediate assignments. *Midway* staff members may also be expected to participate in the business aspects of the newspaper from administrative tasks to advertising sales. Teamwork and effective communication are important aspects of this class. Because students can move among positions on the staff from quarter to quarter and the work is individually tailored, a student may take this course up to three years, and many do.

Beginning Yearbook Journalism

Course Number: 1250

Credit: 1

Prerequisite: None

and

Advanced Yearbook Journalism

Course Number: 1252

Credit: 1

Prerequisite: Beginning Yearbook Journalism

Yearbook Journalism is open to all students who can attend regular, arranged class meetings. Staff members also work after school, occasional evenings, and some Saturdays to meet deadlines. Some staff members work the first week of summer to complete the U-High yearbook, *U-Highlights*. The central component of this class is, of course, work to be published in the yearbook—written articles but also headlines, captions and alternative storytelling forms, page designs, and photo editing. This course also offers further experience in desktop publishing, particularly in using graphics and design techniques. Along with the production of the book, students will develop and use skills in leadership, management, and communication. Teamwork and effective communications are important aspects of this class. Each student is trained in all aspects of digital yearbook production, though some may specialize. All staff members participate in selecting a theme and deciding other book elements. Additional assignments will be used for enrichment and inspiration. Some of these will be short-term, while others will have longer deadlines, allowing students to complete the work around more immediate assignments. *U-Highlights* staff members are also expected to participate in the business aspects of the newspaper from administrative tasks to advertising sales. Students can apply for leadership positions and move to the advanced course, which can be taken up to three years. Advanced students have a large role in deciding editorial policy, designing pages, coaching peers, taking complex assignments, and managing teams to meet deadlines.

Photojournalism

Course Number: 1260

Credit: 1

Prerequisite: Students should come to this class with a thorough understanding of how to use their DSLR cameras well. Each student must have a DSLR camera with an external flash for this class. Students will need to provide their own batteries and flash drive for their cameras, as well as a memory card.

Photojournalism is a fun and exciting yearlong course that is part of the student-run publications, *U-High Midway* and *U-Highlights*. Students will see their own photo works in print!

Students have a once-a-week meeting as a group at lunch on Fridays, a one period critique session with the teacher, and spend the equivalent of the remaining two periods photographing and submitting photographs with the help and approval of the teacher. The teacher meets individually with the students during other lunch periods.

Each student is responsible for the photo assignments they receive from journalists/editors, as well as a number of sports prints each quarter. There are after-school times which students will need to use to photograph either assignments and/or sports. This is a non-darkroom class, with digital pictures forming the image content of the publications. Students will also produce photo essays of individual projects of their choosing.

Physical Education, Health, and Wellness

The development of physical skills and the understanding of concepts related to health and fitness enhancement can provide students with a foundation for a lifetime of healthful behaviors and pursuits. The Physical Education Health and Wellness Program has been designed to meet this end. We provide a combination of elective and required units. We encourage students to select electives of varying content in order to explore new interests.

Three full years of physical education are required for graduation.

Physical Education I (freshman)

Course Number: 1910

Physical Education II (sophomore)

Course Number: 1920

Physical Education III (junior)

Course Number: 1930

The freshman, sophomore, and junior physical education curriculum is a semi-elective program designed to give each student the opportunity to explore a variety of activities. PE runs in six, six-week units. We strive to give students their top preferences. Limitations of space and facilities preclude the possibility of all students being able to register in every course they desire; however, we are typically able to give students their first or second choice of activity unit. In addition, all students are highly encouraged to enroll in the PE curriculum during their freshman year and avoid postponing this graduation requirement. Summer Physical Education classes are intended to reduce the junior year demands. Careful consideration is made in the space, class size, and staffing for students to meet their requirements. Any exceptions must be approved by the PEHW department chair. Each student must register for six activity courses per year. Each completed unit is given 1/6 credit.

Physical Education IV

Course Number: 1940

Seniors who have not completed their physical education requirement must register for Physical Education IV. Those needing less than three quarters' credit are required to register for physical education during the fall or winter quarters. Course registration will take place at the beginning of school. Credit is not waived for May Project.

Elective: Seniors

Course Number: 1950

Prerequisite: Placement by the department

Seniors who have completed their physical education requirement may opt to enroll in P.E. classes.

Registration for physical education courses has these guidelines:

- > Registration for specific activity courses will take place during the high school course registration process.
- > Please see the general section related to adding/dropping of courses for information about unit change requests.
- > All freshmen are required to take a dance unit and a swim unit. In addition, the freshmen will be enrolled in a Health/Wellness 9 and fitness training unit during their first 12 weeks of school. Both courses alternate weeks and relate concepts from the classroom to the fitness center. Their remaining units for the year are elective.
- > Sophomores are required to register for the Health and Wellness 10 unit; their other five units for the year are elective.
- > Juniors are required to register for a CPR unit. Their other five units for the year are elective.
- > Completion of a swim unit is a PE requirement. Various options exist to fulfill this requirement and students will be informed of which options are available to them, based on their experience and ability.

Tentative activity course offerings for Physical Education I, II, III, IV:

Aqua Fitness	Self Defense
Adventure Education	Soccer /Hockey
Badminton	Social Dance
Basketball	Softball
CPR	Speed/Agility/Games
CPR for Lifeguarding	Stress Redux
Fencing	Swimming
Field Sports	Tap Dance
Fitness Center	Team Handball
Floor Hockey	Team Sports
General Swim	Tennis
Golf	Touch Football
Gymnastics	Ultimate Frisbee/Games
Health and Wellness 9	Volleyball/Eclipse ball
Health and Wellness 10	Water Polo
Team Sports	Yoga/Pilates/Zumba
Instructional Swim	
Lifeguarding	

Extenuating Circumstances

Medical documentation identifying a health-related need for a Physical Education restriction must be shared with the high school nurse and the PEHW department chair, and kept on file, before registration begins. All medical excuses automatically terminate in June of the school year and *must* be renewed in the fall.

To obtain a medical excuse from a Physical Education class, a note from a physician must first be presented to the high school nurse. Information will then be shared with the PEHW department chair. If the excuse is for a period of time that exceeds 25% of the class meetings, the student will be assigned a grade of Medical for the relevant unit(s). *Students dropping a Physical Education unit for reasons other than medical must arrange to make up the unit with the PE department chair during their senior year.*

Service Learning Program

The Service Learning Program is designed to foster community-minded, compassionate, and civically engaged students through awareness, service, and reflection. The program is rooted in the "learning by doing" philosophy of John Dewey, which guides our students to explore complex social issues and enrich their classroom experience in real world settings. Through the service learning experience, students develop a deeper understanding of community and a lifelong commitment to social change.

Service Learning Program

Course Number: 2010

Credit: None

Prerequisite: None

Students' sophomore year is uniquely dedicated to service, and successful completion of the program is a graduation requirement. Students who transfer to U-High after their sophomore year are asked to meet with the Service Learning Coordinator to determine a service plan.

At the beginning of their sophomore year, students select a community partner organization where they commit to 40 hours of service over the course of the school year. Students can select from a pre-approved list of partner organizations or propose a new service site. All service forms must be approved before a student can start his or her service. With the guidance of the Service Learning Coordinator, students will be responsible for coordinating a schedule that works for both the student and the organization. Service completed prior to the start of sophomore year (i.e. start of school year—late August/early September) is not counted toward the 40-hour requirement.

Reflection is a key component of the Service Learning Program. Students in the program participate in monthly reflections in advisory and give a capstone presentation to the freshman class at the end of the year.

Additional information, including a list of partner organizations and program requirements, can be found in the 2018-2019 Service Learning Handbook, available online via Schoology.

Peer Leadership Program

Course Number: 2009

Credit: None

Prerequisite: Junior or senior standing; application required

The Peer Leadership Program provides a group of select juniors and seniors with training and experience to further develop their leadership skills. Peer Leaders are often called upon to represent U-High and have a variety of leadership opportunities to work across Schools and in our greater community.

The Peer Leadership Program is a two-year commitment. Incoming Peer Leaders are matched with a freshman advisory and transition with the same group of advisees to sophomore year. Current Junior Peer Leaders transition to Senior Peer Leaders pending a year-end evaluation.

Junior Peer Leaders partner with freshman advisories, working to build community within the advisory, and serve as a resource and mentor for students as they transition into the High School.

Senior Peer Leaders partner with sophomore advisories, facilitate service learning seminars in conjunction with the sophomore advisory program, provide support and guidance to students volunteering in the community, and continue to serve as a resource and mentor for students in the High School.

Peer Leaders commit to attending weekly meetings during Open Time, a two-day leadership retreat in the summer, and other trainings during the academic year. Junior Peer Leaders help facilitate Freshman Orientation and Freshman Retreat, and Senior Peer Leaders lead activities and serve alongside sophomores on Sophomore Retreat.

Summer School, Summer Opportunities, and Travel

Summer School

Some courses taken during the University High Summer School session may be included in the graduation requirement of 21.5 credits. However, in planning a four-year program, it is difficult to predict which courses may be offered during any summer session. A limited number of courses may be offered; course offerings are based on student interest and faculty availability. The following credit-bearing courses are offered for Summer 2018 through Lab's SummerLab program:

- Geometry
- Introduction to Computer Science
- Latin 2

SummerLab course fees vary each year. The fee for the SummerLab 2018 courses listed above is approximately \$2800 per course.

Attendance policies for SummerLab high school credit-bearing courses are as follows:

- Daily attendance in classes for high school credit is required.
- Any absence may place credit for the class in jeopardy; unavoidable absence will be managed case-by-case and will depend on the student's ability to make up missed material.
- PLEASE NOTE: for Geometry, students who miss more than two days must drop the class.

Summer Link

Through Summer Link and Lab's unique partnership with the University of Chicago, qualified U-High students have the opportunity to apply for paid summer internships. Currently half of the internships are with University of Chicago biological, physical, and computer science labs and the other half are through the UChicago Booth School of Business, Law School, University Press, or non-University businesses connected to Lab by way of Laboratory Schools or University alumni.

The Internship for Civic Engagement

Through a partnership with the University of Chicago's Office of Civic Engagement and its newly launched Community Programs Accelerator, high school students from both the Laboratory Schools and UChicago Charter School have the exciting opportunity to make a difference on Chicago's mid-South Side through the Internship for Civic Engagement (ICE) program. The five-week, paid internship emphasizes leadership development in the context of community-based learning. This experience is designed to strengthen participating students' grasp of social, political, and cultural

issues by connecting academic skills learned in the classroom with the needs and expertise of the community.

Travel: World Language Study Abroad and Exchange Opportunities

Please see the World Language Department section to learn more about travel opportunities with the department.

Summer Fieldwork at the Marine Biological Laboratory

The Marine Biological Laboratory (MBL), founded in 1888, is a world-renowned private research institution and international center for biological discovery located in Woods Hole, MA. In 2013 the University of Chicago and MBL formed an affiliation to strengthen both institutions' missions of leadership and innovation in scientific research and education. That affiliation has also benefited Lab high school students through the summer Fieldwork in Biological Studies at the MBL. The program is designed for students who have successfully completed introductory Biology and Chemistry. The students will spend five days engaged in intense biology experiences that both enhance and relate to the current curriculum. Experiences will include, but are not limited to, boarding the *Gemma* to collect samples and gather data on the local marine intertidal ecosystem, visiting unique salt marshes to study restoration ecology, learning about and utilizing cutting-edge microscopes made exclusively available to the MBL community, and much more. The formal curriculum will be supplemented by co-curricular activities such as trips to museums and field research sites, whale watching, and guest lecturers. Students will be evaluated primarily on the basis of daily journal.

Please note: travel opportunities and the Summer Fieldwork program have associated fees. Specific fee information is shared at the time of program announcement.

Independent Studies: Policy and Programs

In keeping with the Mission Statement for the Laboratory Schools and in recognition of the diverse needs of our students, the High School of the University of Chicago Laboratory Schools has adopted the following guidelines for Independent Study by our students:

- > Independent Studies must meet on campus.
- > An Independent Study serves to supplement regular course offerings. Proposals must center on topics beyond the scope of these courses.
- > Independent Studies do not replicate/replace a course that is in this Program of Studies, even if the course does not run in a given year.
- > Students may not use an Independent Study to replicate/replace a course that did not fit into their schedule.
- > Every Independent Study requires a voluntary teacher sponsor.
- > A teacher may supervise, at most, two Independent Study projects, though one project may involve more than one student.
- > If a student wishes to pursue an Independent Study, they should map out the proposal with the supervising teacher, using the Schools' Independent Study form.
- > The final, written proposal must be presented by the student to the cooperating teacher, the department chair, counselor, parents and assistant principal for approval and signature, no later than the end of the third week of the term.
- > Independent Study will receive 1/3 elective credit for each quarter successfully completed. It cannot be used to fulfill a graduation requirement.

Beyond these school-wide requirements, certain departments have their own programmatic specifications for Independent Studies:

History Department	<p>Independent Study in History Prerequisite: Consent of instructor and placement by the department</p> <p>Students may arrange an independent study project with any department member. The student must submit a written proposal for the approval of the department. Projects should concern topics within history and the social sciences that cannot be pursued through the department's regular course offerings. Students may choose to receive a regular grade or pass/fail for independent study. This decision concerning grading preference must be made at the outset of independent study. Students pursuing an independent study in History are expected to work independently, read extensively, and, in many cases, complete a research paper.</p>
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Math Department	<p>Independent Study in Mathematics Prerequisite: Consent of instructor and placement by the department</p> <p>A student may request an independent study project with any department member.</p>
Science Department	<p>Laboratory Project in Science Prerequisite: Successful completion of the two-year introductory sequence</p> <p>The student is provided the opportunity to do an individual laboratory investigation in some area of the biological or physical sciences. They must have demonstrated mastery of the basic concepts and skills of the prerequisite courses as well as the inclination and ability to plan and carry out laboratory investigation independently. Interested students must obtain further information and assistance in developing a plan of work by consulting members of the science department.</p> <p>Library Project in Science Prerequisite: Successful completion of the two-year introductory sequence</p> <p>The student designs and carries out a plan for investigating self-selected topics in a specific area of science. The course includes extensive use of the appropriate university and public libraries. Interested students must obtain further information and assistance in developing a plan of work by consulting members of the science department.</p>
Computer Science	<p>Independent Study in Computer Science Prerequisite: AP Computer Science or AT Web App Development</p> <p>Students are provided the opportunity to build on the skills and concepts learned in the upper level computer science courses by creating a project on an advanced topic in computer science. A non-exhaustive list of potential topics includes game programming, data-driven art, algorithms, networking, operating systems, parallel computing and artificial intelligence.</p>
Fine Arts	<p>Independent Study in Fine Arts Prerequisite: Junior or Senior status required, permission of instructor and approval of the department</p> <p>An independent study project in Fine Arts may be arranged with a consenting member of the Fine Arts Department given the following circumstances:</p>

	<p>The student must be at least a junior and have already fulfilled the Fine Arts requirements from regularly scheduled course offerings. Projects for independent study should concern areas within the Fine Arts that cannot be pursued through regular beginning or advanced course offerings. After receiving the approval from the instructor, the student must submit a written proposal for the approval of the department.</p>
Music	<p>Independent Study In Music Prerequisite: Consent of instructor and consensus of the department</p> <p>An Independent Study Project in music may be arranged with any member of the Music Department given the student has already fulfilled his/her music requirement. After receiving approval from the instructor, and prior to the start of the quarter in which the student will begin the project, he/she will present a written proposal to the department. Projects might involve advanced study of an instrument, advanced study in a music course, or assistant-teaching in the classroom.</p>

Advanced Placement Courses and Advanced Topics Courses

Several Advanced Placement (AP) classes are taught in the High School and provide in-depth study in a number of subjects. AP examinations are administered at University High School during the month of May. These tests are national exams offered by the College Board. Some courses for which AP examinations are available are not offered at University High School. However, this does not prohibit students from registering for and taking AP exams of their choice. Students should check with the counselors for the full range of AP examination opportunities.

At highly selective colleges and universities, admissions personnel will consider the rigor of an applicant's high school program. It is a very important factor in evaluating candidates for admission. Therefore, Advanced Placement or Advanced Topics (AT) coursework is desirable for students planning to apply to these institutions. University High School students who register for an Advanced Placement class are strongly encouraged to take the Advanced Placement examination in May. However, this is not a requirement.

A specific Advanced Placement class or Advanced Topics class is not always appropriate for every student. Students should always consult with their teachers, advisors, parents, and counselors as they make decisions regarding these classes. Each student should consider his or her likelihood of success in an accelerated, college-level curriculum. This judgment should be based upon previous preparation in an academic area, interest, ability, and overall class and extracurricular load. Students interested in an AP or AT class should determine their eligibility by checking the departmental prerequisites.

In consultation with our academic departments, we have some recommendations about which U-High courses might best prepare students for particular SAT Subject Tests:

COURSE	SAT SUBJECT TEST
Chemistry M	Chemistry Subject Test
AT Physics I	Physics Subject Test
AT Biology	Biology M Subject Test
US/AT US History	US History Subject Test
TSDMT, Discrete Math, Pre-Calculus/Intro Calculus, or Accelerated Pre-Calculus	Math Level II Subject Test
All Junior or Senior English Classes	Literature Subject Test
World Languages	Speak directly to teacher before registering

Individual colleges will have their own expectations about college testing, and these requirements can be found at each university's admissions websites. Please direct any further questions about standardized testing for college admissions to the U-High College Counseling staff.

May Project

A long-established tradition at U-High, May Project enables seniors to research, develop, and carry out a significant project outside the classroom during the month of May. It is designed to be a "capstone" experience that calls on the skills and maturity seniors have developed during their time at the Laboratory Schools. In many ways, May Project is also a bridge between the worlds of high school and college.

Seniors who want to participate in May Project must go through a rigorous process involving idea development, preliminary research, finding a sponsor and/or advisor, and writing a detailed proposal. A Reader's Committee composed of Laboratory Schools faculty and administrators reads and evaluates the proposals, providing feedback and final approval. Once a senior's project is approved, he or she uses the month of May for the project, free from the need to attend class (with certain exceptions for credit requirements). At the end of the month, seniors do a presentation in a Laboratory Schools classroom and set up an exhibit for the entire school to demonstrate what they have learned. If a senior is doing a May Project, its successful completion is required for graduation.

Specific details and requirements for participation in May Project can be found in the May Project Handbook, available to students in Schoology.