

UPPER SCHOOL

CURRICULUM GUIDE

2023-2024





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GRADUATION REQUIREMENTS

Students must earn twenty-four (24) credits in grades 9-12. They must be enrolled in and successfully pass a minimum of six (6) courses earning six (6) credits each year. If a student does not successfully earn six (6) credits, they may be required to attend summer school or make up the credit in some other way. Additionally, students must take four (4) academic courses (defined as offerings from the English, History, Math, Science, and World Language departments and all AP classes) each semester.

ENGLISH:

4 credits required

- English I
- English II
- English III
- English IV

English I, II, III, and IV are offered at the College Preparatory and Honors levels. In the senior year, English IV is offered at College Preparatory, Honors, and the Advanced Seminar level, which is comparable in scope and rigor to an Advanced Placement (AP) level course. Eligible students may elect to take AP English Language in place of English II in the sophomore year and AP English Literature in place of English III in the junior year.

HISTORY:

3 credits required

- American Government
- World History
- United States History

American Government, World History, and United States History are offered at the College Preparatory and Honors levels. Eligible students may elect to take Advanced Placement (AP) level courses in AP Government and Politics in the freshman year, AP World: Modern in the sophomore year, and AP United States History in the junior year.

MATHEMATICS:

4 credits required

- Algebra I (may be completed in Middle School)
- Geometry (may be completed in Middle School)
- Algebra II

Algebra I, Geometry, Algebra II, and Precalculus are offered at the College Preparatory and Honors levels. Depending on each student's progression, eligible students may elect to take Advanced Placement level (AP) courses in AP Calculus AB, AP Calculus BC, or AP Statistics to round out their mathematics requirements. Other non-AP options that satisfy graduation requirements (on the Annotated Course List) are available as well.

SCIENCE:

3 credits required

- Biology
- Chemistry
- Physics

Biology, Chemistry, and Physics are offered at the College Preparatory and Honors levels. Eligible students may also elect to take Advanced Placement (AP) level courses in AP Biology, AP Chemistry, and AP Physics I.

WORLD LANGUAGE:

2 credits in the same language required

- Latin I, II, III, IV, and AP Latin
- Spanish I, II, III, Pre-AP Spanish, and AP Spanish

World Language courses are offered at the College Preparatory and Honors levels. Students are required to complete two levels of the same language and are encouraged to progress to the Advanced Placement (AP) level.

FINE ARTS:

1 credit required from any of the following

- Adv. Music Ensemble
- Piano Tech. & Performance
- Art/Science of Dig. Audio
- AP Music Theory
- Intro to Theater
- Theater I - IV
- Art I - II
- Ceramics I - II
- Sculpture
- Drawing & Painting
- Global Art & Visual Culture
- Digital Media & Design
- Creative WW & Production
- Dig. Fabrication & Robotics
- Intro to Engineering Design
- AP Art History
- AP Art & Design Program

HEALTH AND PHYSICAL EDUCATION:

0.5 credit of each required



ANNOTATED COURSE LIST

ENGLISH

English I: Introduction to Literature *

English II: British Literature * Eng I

English III: American Literature * Eng II

English IV: Global Literature * (0.5) sem 2

English IV: Folklore, Fairy Tales, & Fantasy * (0.5) sem 1

English IV: Composition * (0.5) sem 2

English IV: Creative Writing * (0.5) sem 1

English IV: Short Stories * (0.5) sem 1

English IV: Gothic Literature * (0.5) sem 2

English IV Adv Seminar: Bible as Literature ^ (0.5) sem 1

English IV Adv Seminar: Literary Theory ^ (0.5) sem 2

AP English Language and Composition ^ Eng I

AP English Literature and Composition ^ Eng II

Journalism I, II, III, IV (Honors only)

HISTORY AND SOCIAL SCIENCE

American Government *

World History *

United States History *

Civil Rights 1900-1970 (Honors only) (0.5) sem 1 +

Civil Rights 1971-Present (Honors only) (0.5) sem 2 +

Introduction to Sociology (Honors only) (0.5) sem 1 +

Contemporary Issues in International Affairs (Honors only) (0.5) sem 2 +

Anthropology (Honors only) (0.5) sem 2 +

Comparative Law & Legal Studies (Honors) (0.5) sem 1 +

Global Econ. Dev. and Public Policy (Honors only) (0.5) sem 1 +

AP United States Government and Politics ^

AP World History: Modern ^

AP United States History ^

AP Macroeconomics ^ (0.5) sem 2 +

AP Microeconomics ^ (0.5) sem 1 +

AP Psychology ^

AP Human Geography #/for Grade 9 ^ +

WORLD LANGUAGE

Latin I, II *, III *

Spanish I, II *, III *

Pre-AP Spanish (Honors only)

Classical Attic Greek ^ +

AP Latin ^ +

AP Spanish Language and Culture ^ +

MATHEMATICS

Algebra I Pre-Alg

Geometry * Alg I

Algebra II * Alg I and Geom

Precalculus * Alg II

Calculus (Honors only) Precalc

College Algebra # Alg II

Probability and Statistics Alg II

Discrete Mathematics (Honors only) Precalc

AP Calculus AB ^ Precalc Honors

AP Calculus BC ^ AP Calc AB

AP Statistics ^ Precalc

SCIENCE AND INTEGRATED SCIENCE

Biology * Phys Sci or Adv Phys Sci

Chemistry * Honors enrolled in Alg II / CP enrolled in Geom

Physics * enrolled in Alg II or higher

Marine Biology: Invertebrates (0.5) > sem 2

Marine Biology: Vertebrates (0.5) > sem 1

Introduction to Computer Science (Honors only) >

Principles of Biomedical Science (Honors only) >

Human Body Systems (Honors only) Bio >

Engineering Essentials (Honors only) >

Introduction to Engineering Design (Honors only) Geom > -

AP Biology ^ Bio & Chem >

AP Chemistry ^ Chem honors, Alg II >

AP Physics I ^ enrolled in Precalc or higher

AP Physics C ^ # >

AP Environmental Science ^ Bio & Chem >

AP Computer Science Principles ^ Alg I >

AP Computer Science A ^ Alg II >

FINE ARTS

Advanced Music Ensemble -

Piano Techniques and Performance (0.5) -

Art and Science of Digital Audio (Honors only) (0.5) > -

Introduction to Theater (0.5) -

Theater I -, II # -, III # -, IV # -

Art I (0.5) sem 1 -

Art II # (0.5) sem 2 Art I -

Ceramics I (0.5) sem 1 -

Ceramics II # (0.5) sem 2 Cer I -

Sculpture: Materials and Methods (0.5) -

Creative Woodworking and Production (0.5) > -

Digital Media and Design (0.5) sem 1, sem 2 > + -

Drawing and Painting (0.5) (Honors only) sem 2 Art I -

Global Art & Visual Culture (0.5) (Honors only) + -

Digital Fabrication and Robotic Arts (Honors only) (0.5) > -

Introduction to Engineering Design (Honors only) Geom > -

Publications

AP Music Theory ^ # -

AP Art History ^ + -

AP Drawing ^ # -

AP 2D Art and Design ^ # -

AP 3D Art and Design ^ # -

PHYSICAL EDUCATION

Health/Life Management Skills (0.5) (FLVS Online only)

Strength and Conditioning (0.5)

- * Honors level is offered in this course
- ^ GPA / AP weight is offered in this course
- DSP credit for students in Arts Conservatory
- + DSP credit for students in Global Affairs
- > DSP credit for students in Integrated Science
- # Approval required
- Prerequisite



UPPER SCHOOL COURSE PLACEMENT & ELIGIBILITY CRITERIA

COURSES

The Upper School offers College Preparatory (CP), Honors (H), and Advanced Placement (AP) courses.

Honors and Advanced Placement courses are accelerated and/or college-level courses designed for the highly qualified and ambitious student. To qualify for Honors and Advanced Placement courses, students must complete all required course prerequisites and meet minimum grade and placement criteria established by each department.

Students who are enrolled in Advanced Placement courses are required to take the AP examination, which is administered by the College Board in May of each school year.

ELIGIBILITY CRITERIA

In the Spring semester of each school year, teachers utilize grading criteria to determine student eligibility for courses the following year. The process of course selection is facilitated by our Academic Advisors for rising 9th grade students and by our College Counselors for rising 10th, 11th, and 12th grade students.

General criteria for matriculation into College Preparatory (CP), Honors (H), and Advanced Placement (AP) courses are based upon final grades for the fall semester. Final grades for spring semester may also be taken into consideration when making final course placements. These grade criteria are as follows:

AP to AP	B
Honors to AP	A-
College Preparatory to AP	Approval Required
Honors to Honors	B
College Preparatory to Honors	A-
College Preparatory to College Preparatory	D-



DISTINGUISHED SCHOLAR PROGRAM

IMMERSE

The Distinguished Scholar Program is available to Upper School students through a formal application and acceptance process. The program is designed to provide students with full immersion in a personalized pathway to concentrate their studies through curricular opportunities and co-curricular experiences that extend the walls of the classroom. Grounded in the Oak Hall's core values of Scholarship, Leadership, and Service, the three areas of concentration include: Arts Conservatory, Global Affairs, and Integrated Science.

SCHOLARSHIP

A minimum grade point average is required for students to be accepted and to maintain enrollment in the program. In addition, a range of specific course requirements are designated for each concentration area. For individual students to determine their personalized pathway to graduation, rising 9th graders meet with Academic Advisors and rising 10th – 12th graders meet with College Counselors to select appropriate coursework and electives that meet the necessary requirements.

LEADERSHIP

Students are expected to exhibit exemplary standards of leadership, collaboration, and behavior throughout their enrollment in the Distinguished Scholar Program. This includes maintaining thoughtful interactions with teachers and peers, collaborating effectively both in and out of the classroom, adhering to all policies and program requirements, and representing their specific area of concentration with respect and professionalism.

SERVICE

A minimum of five (5) hours of service must be completed by students within the Distinguished Scholar Program for each school year of enrollment. Hours completed can also count towards graduation requirements. Specific examples of service vary by concentration area but are generally designed for students to contribute to activities, events, exhibits, and additional learning opportunities as outreach to the wider school and local community.

ADDITIONAL REQUIREMENTS

Each of the three areas of concentration include additional expectations and requirements beyond the specific components outlined in Scholarship, Leadership, and Service. Examples may include involvement in clubs, events, outreach, or other activities that enhance experiential learning opportunities of the program. The coordinators in each concentration provide this information to students within their area.

Students who successfully fulfill the requirements of the program receive distinction on their transcript, special recognition at graduation, and a medallion and specialized seal on their Oak Hall School diploma.



ENGLISH

ENGLISH I: INTRODUCTION TO LITERATURE (College Preparatory) (1.0 credit)

English I: Introduction to Literature focuses on the various genres of literature and uses the selected readings as the topics for beginning analytical writing. Students read short stories, novels, plays, poems, and non-fiction prose to study the major elements and themes of literature, both classic and modern. A major emphasis of the course is writing. Building on skills and strategies taught in Middle School, writing assignments focus on developing a five-paragraph essay including a research paper using MLA format. Students also write at least one creative piece each quarter. Grammar and vocabulary acquisition is emphasized throughout the entire year.

ENGLISH I: INTRODUCTION TO LITERATURE (Honors) (1.0 credit)

At the honors level, this course focuses on teaching students how to identify and analyze rhetorical strategies through “close reading” of a variety of persuasive modes (editorials, speeches, historical documents, letters, etc.). Students examine texts with a greater emphasis on non-fiction prose. Students work on assignments designed to improve their ability to think analytically, dissect exemplary forms of rhetoric, and apply such devices and strategies in their own persuasive writing.

ENGLISH II: BRITISH LITERATURE (College Preparatory) (1.0 credit)

Prerequisite: English I

English II: British Literature examines our literary heritage through the close study of significant British Literature. Students are encouraged to draw inferences and discover parallels among the writings of various periods, styles, and civilizations. Important literary and cultural periods are studied with representative works from English and continental cultures, starting with the Anglo-Saxons (“Beowulf”) and bringing us right to 21st century contemporary British Literature (with the likes of Salman Rushdie or Tessa Hadley). The course focuses on helping students to better understand material at a college level of complexity. The chronological organization of the course should give the students a solid comprehension of the evolution of literature and human thought. Finally, students receive a thorough grounding in important literary terms and concepts.

ENGLISH II: BRITISH LITERATURE (Honors) (1.0 credit)

Prerequisite: English I

At the honors level, this course covers the British Literature canon (from Anglo-Saxon literature through Postmodernism and contemporary British literature), and provides a thorough grounding, applying literary terms, concepts, genres, and a hands-on application of formal written analysis of texts. Within this honors-level curriculum, a greater emphasis is on research skills, textual annotation and note-taking skills, application of primary and secondary source support in writing, and the fineries of MLA research modes. In this regard, honors students can expect to receive a higher volume of reading (typically featuring two to three novels per semester) and writing (including one extended paper of four to five pages per semester).

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION (1.0 credit)

Prerequisite: English I; Recommended: English I Honors

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts—including images as forms of text—from a range of disciplines/historical periods.



ENGLISH

(CONTINUED)

ENGLISH III: AMERICAN LITERATURE (College Preparatory) (1.0 credit)

Prerequisite: English II

English III is a course that surveys American literature from the Puritan era to the present, tracing the religious, sociological, psychological, philosophical, and aesthetic concerns of American authors. In College Prep, students focus on learning to interpret passages for their metaphorical meaning as well as building vocabulary and improving reading ability. The class will also focus on building students' overall knowledge of American history and culture. Students write essays each quarter that demonstrate their reading and writing skills. The class focuses on reading skills and writing grammatically sound and clear essays. By the time students finish the class, they should be prepared to learn to write at an introductory college level.

ENGLISH III: AMERICAN LITERATURE (Honors) (1.0 credit)

Prerequisite: English II

English III Honors is a course that surveys American literature from the Puritan era to the present, tracing the religious, sociological, psychological, philosophical, and aesthetic concerns of American authors. In Honors, students examine the texts of these authors to gain insight into their imaginations, while also examining the societies from which each imagination springs. In-class discussions and student writing assignments will focus on learning to recognize metaphor and authorial tone as well as connecting individual texts to the broader historical context in which they were produced. Students write several essays each quarter that demonstrate their analytical and research skills. The class focuses on literary analysis and argumentative writing. By the time students finish the class, they should be prepared to discuss and write about literature and culture at the level of a first-year college student.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION (1.0 credit)

Prerequisite: English II; Recommended: Advanced Placement English Language and Composition

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

NOTE: Since most other high schools in our community offer AP Language and Composition in 11th grade and AP Literature and Composition in 12th grade, new OHS enrollees who have taken one of those courses already, but in a different year, are welcome to take either AP Language and Composition or AP Literature and Composition in their junior and/or senior year—the classes are not necessarily sequential nor grade year-determined.



ENGLISH

(CONTINUED)

ENGLISH IV: SPECIALIZED SUBJECT "SENIOR SEMINAR" COURSES (College Prep, Honors, or Advanced) (0.5 credit per semester)

Prerequisite: English III, AP Language, or AP Literature

The Oak Hall Upper School English department is proud to offer an innovative and engaging "Senior Seminar" curricula. Seniors are given the opportunity to choose two classes (one per semester) out of a diverse sampling of courses. Senior Seminar courses explore different literature from a wide array of genres and mediums, and thus expand for our students' critical thinking and cultural analysis. This diverse curriculum provides a more in-depth approach than our 9th-11th grade English "survey" courses and is structured much like specialized collegiate courses.

In these courses, students might read text such as *The Classic Fairy Tales*, *American Gothic Tales*, or other titles. Additionally, writing assignments might include writing an original fairy tale to developing a critical analysis of the role of women in traditional early American literature. One of the Senior Seminar course offerings is Advanced Seminar, a more advanced course taught with the depth and rigor of a typical college literature course. All Senior Seminar courses are designed to replicate typical introductory-level college classes and are taught at a level appropriate to the students' abilities.

JOURNALISM I, II, III, IV (Honors) (1.0 credit)

The main objective the Journalism course sequence is to create an online school newspaper that reflects the Oak Hall School community and equally reflects each student in the student body from Preschool through Grade 12. The goal as a class is to continuously update the online newspaper with features, sports articles, editorials, and other forms of journalism such as audio and video clips.



HISTORY & SOCIAL SCIENCE

AMERICAN GOVERNMENT (College Preparatory) (1.0 credit)

This course is designed to be a detailed survey of the United States Governmental structure and the political environment in which it functions. Students will look at the history behind the emergence and establishment of our Democratic Republic and explore in depth the thinkers, ideas, and dynamics that shaped our system, with special attention to social context in which it was crafted. They will take a special interest in distinct themes from our text: Politics is conflictual, and politics ultimately seeks to find a synthetic solution. They will be writing a major thesis paper in the second semester that should be founded on empirical evidence, well-constructed and relevant. Finally, they will be reading extensively from their text and supplemental resources.

AMERICAN GOVERNMENT (Honors) (1.0 credit)

Honors Government and Politics is a year-long course that seeks to provide students with the political knowledge and reasoning processes to participate meaningfully and thoughtfully in discussions and debates that are currently shaping American politics and society. It is important to note that this course is not a history course; it is a political science course that studies the interconnectedness of the different parts of the American political system as well as the behaviors and attitudes that shape this system and are the byproduct of this system. Honors Government and Politics accomplishes these goals by framing the acquisition of political knowledge around enduring understandings and big ideas about American government and politics. This course enables students to analyze current and historical political events like a political scientist and develop factually accurate, well-reasoned, thoughtful arguments and opinions that acknowledge and grapple with alternative political perspectives.

ADVANCED PLACEMENT UNITED STATES GOVERNMENT AND POLITICS (1.0 credit)

AP United States Government and Politics provides a nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. Students practice the skills used by political scientists by studying data, political writings from the founding era to the present, the structure of the government as established by the Constitution, and constitutional interpretations handed down by the Supreme Court.

WORLD HISTORY (College Preparatory) (1.0 credit)

This year-long course introduces students to world history and focuses on the time period from 600 C.E.-present. All regions are covered, including Africa, Asia, Europe, the Americas, and Oceania. Time periods and topics include the Byzantine Empire, the Middle Ages, the Renaissance, Scientific Revolution, the Reformation, exploration and colonization, worldwide revolutions, development of modern nations, and the world wars. Students are encouraged to think about history thematically. Class work, writing assignments, activities, projects, and assessments engage students with economic, cultural, social, political, and environmental questions.



HISTORY & SOCIAL SCIENCE

(CONTINUED)

WORLD HISTORY (Honors) (1.0 credit)

Like World History, World History Honors is a year-long course that introduces students to world history and focuses on the time period from 600 C.E.-present. All regions are covered, including Africa, Asia, Europe, the Americas, and Oceania. Time periods and topics covered include the Byzantine Empire, the Middle Ages, the Renaissance, Scientific Revolution, the Reformation, exploration and colonization, worldwide revolutions, development of modern nations, and the world wars. Students are encouraged to think about history thematically. Class work, writing assignments, activities, projects, and assessments will engage students with economic, cultural, social, political, and environmental questions. Students in the honors course are expected to demonstrate strong academic skills. This includes established note taking, writing, and reading comprehension skills. Honors courses expect students to be independent learners with intellectual curiosity about the subject.

ADVANCED PLACEMENT WORLD HISTORY: MODERN (1.0 credit)

In AP World History: Modern, students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.

UNITED STATES HISTORY (College Preparatory) (1.0 credit)

This year-long course covers the political, economic, and cultural development of the United States from the Civil War era through the present. Topics covered include the Civil War, Reconstruction, Native American culture and western settlement, industrialization, the Progressive Era, World War I, the Roaring Twenties, the Great Depression and New Deal, World War II, and post-World War II era through the early 2000's. Also covered are domestic, social, and foreign policy issues. These include the feminist movement, the Civil Rights movement, the Cold War, Vietnam, popular culture, and post-Cold War foreign policy. Students' knowledge is assessed through primary source analysis, reading comprehension, written assignments, other class activities, projects, and tests.

UNITED STATES HISTORY (Honors) (1.0 credit)

Like United States History, United States History Honors is year-long course that covers the political, economic, and cultural development of the United States from the Civil War era through the present. Topics covered include the Civil War, Reconstruction, Native American culture and western settlement, industrialization, the Progressive Era, World War I, the Roaring Twenties, the Great Depression and New Deal, World War II, and post-World War II era through the early 2000s. Also covered are domestic, social, and foreign policy issues. These include the feminist movement, the Civil Rights movement, the Cold War, Vietnam, popular culture, and post-Cold War foreign policy. Students' knowledge is assessed through primary source analysis, reading comprehension, written assignments, other class activities, projects, and tests. Students in the honors course are expected to demonstrate strong academic skills. This includes established note taking, writing, and reading comprehension skills. Honors courses expect students to be independent learners with intellectual curiosity about the subject.



HISTORY & SOCIAL SCIENCE

(CONTINUED)

ADVANCED PLACEMENT UNITED STATES HISTORY (1.0 credit)

In the AP United States History course, students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. The course also provides eight themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures.

CIVIL RIGHTS 1900-1970 (Honors) (0.5 credit)

This course examines the complexities of Civil Rights and Liberties in the United States from 1865-1970. Students are given the opportunity to learn about the struggles certain groups in the United States have experienced in obtaining and securing Civil Rights and Liberties. In addition, students are given the opportunity to analyze the causes and effects of these struggles. In doing so, students learn to understand how these struggles of the past are connected to the struggles of present day. Students analyze historical events and formulate their own opinions of complex and controversial topics, gaining a sharpened ability to think critically and formulate informed opinions.

CIVIL RIGHTS 1971-PRESENT (Honors) (0.5 credit)

This course examines the complexities of Civil Rights and Liberties in the United States from 1970-present times. Students are given the opportunity to learn about the struggles certain groups in the United States have experienced in obtaining and securing Civil Rights and Liberties. In addition, students are given the opportunity to analyze the causes and effects of these struggles. In doing so, students learn to understand how these struggles of the past are connected to the struggles of present day. Students analyze historical events and formulate their own opinions of complex and controversial topics, gaining a sharpened ability to think critically and formulate informed opinions.

INTRODUCTION TO SOCIOLOGY (Honors) (0.5 credit)

Introduction to Sociology is a course that studies human society, culture, and social interactions. Sociology allows students to examine a broad range of social issues by moving beyond the individual to consider how larger structures of power and culture shape opportunities, attitudes, and behavior. Through analysis, critical thinking, research, projects, and social experiments, students explore topics including socialization, diversity and inequality, cooperation and conflict, social change, social deviance, the family, gender relations, social institutions, and organizations.

CONTEMPORARY ISSUES IN INTERNATIONAL AFFAIRS (Honors) (0.5 credit)

Contemporary Issues in International Affairs is a dynamic elective course focused on global current events. The course aims to respond to international developments affecting governance, sustainability, and human rights. Students study and share their perspectives on critical issues facing their world today, providing a foundation for action as global citizens. Topics may include but are not limited to immigration, the ethics of technology, nuclear deterrence, social justice, global health, energy policy, and international conflict.



HISTORY & SOCIAL SCIENCE

(CONTINUED)

ANTHROPOLOGY (Honors) (0.5 credit)

Anthropology is a course where students learn the differences and similarities in populations through exploration of human's cultural, social, biological, and linguistic dimensions. Through research, projects, primary and secondary source analysis, and discussion, students become acquainted with anthropological perspectives and ways of thinking and develop critical, reflexive knowledge. Starting with a global study of human culture from its origins, the class explores the nature of culture in human societies. Anthropology as a discipline contributes to an understanding of contemporary issues, offers critical insight into the continuities, examines the dynamics of social change, studies the development of societies, and challenges cultural assumptions.

COMPARATIVE LAW AND LEGAL SYSTEMS (Honors) (0.5 credit)

Comparative Law and Legal Systems provides a foundational understanding of the United States legal system and a comparative study of the legal systems of other countries. Project-based learning is a primary component of the class as students choose one country outside the United States as their individual immersive focus of study over the course of the semester. Student-led research provides the class with a broader understanding of international legal systems, their similarities and differences, and the interconnection between systems of law worldwide.

GLOBAL ECONOMIC DEVELOPMENT AND PUBLIC POLICY (Honors) (0.5 credit)

Global Economic Development & Public Policy is an elective course focused on inquiry-based learning to understand how the forces of the private and public sectors affect economic development. Students use an interdisciplinary framework to inquire about the nature, causes, and potential policy solutions needed to address global issues. Topics include but are not limited to economic measurements, global institutions, migration, global health, and social entrepreneurship.

ADVANCED PLACEMENT MACROECONOMICS (0.5 credit)

AP Macroeconomics is a semester course that introduces students to the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

ADVANCED PLACEMENT MICROECONOMICS (0.5 credit)

AP Microeconomics is a semester course that introduces students to the principles of economics that apply to the functions of individual economic decision makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.



HISTORY & SOCIAL SCIENCE

(CONTINUED)

ADVANCED PLACEMENT PSYCHOLOGY (1.0 credit)

The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation, and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatments of psychological disorders, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas. The AP Psychology course is designed to strengthen critical thinking skills such as data analysis, scientific investigation, and application of knowledge.

ADVANCED PLACEMENT HUMAN GEOGRAPHY (1.0 credit)

Approval Required for Grade 9

AP Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. Students also study the methods and tools geographers use in their research and applications. The AP Human Geography curriculum reflects the goals of the National Geography Standards (2012). There are no prerequisites for this course; however, students are expected to be able to read a college-level text and write grammatically correct, complete sentences.



WORLD LANGUAGE

LATIN I (College Preparatory) (1.0 credit)

In this course, students are introduced to the Latin language, Roman civilization, and classical mythology of Greece and Rome. This introduction offers students an entry level of knowledge into Latin's alphabet, vocabulary, and grammatical syntax in a way that promotes future fluency in the language. Studies focus on memorizing forms and vocabulary, analyzing forms, and translating sentences and passages from the textbook, Liber Digitalis and ancillary digital flashcards. Quizzes are based on vocabulary and forms, while class and homework will come from textbooks.

LATIN II (College Preparatory) (1.0 credit)

In this course, students continue their learning of the Latin language, Roman civilization, and classical mythology of Greece and Rome. Studies focus on becoming proficient with forms and vocabulary, analyzing forms, and translating sentences and passages from the textbook, Liber Digitalis and ancillary digital flashcards. Quizzes are based on vocabulary and forms, while class work and homework come from the textbooks.

LATIN II (Honors) (1.0 credit)

In this course, students continue their learning of the Latin language, Roman civilization, and classical mythology of Greece and Rome. Studies focus on becoming proficient with forms and vocabulary, analyzing forms, and translating sentences and passages from the Liber Digitalis textbook and ancillary digital flashcards. Quizzes are based on vocabulary and forms, while class work and homework come from the textbooks. For students in the honors level course, expectations on the depth and amount of participation, assignments, and assessments are elevated beyond the expectations at the college preparatory level.

LATIN III (College Preparatory) (1.0 credit)

In this course, students continue their learning of the Latin language, Roman civilization, and classical mythology of Greece and Rome, with the addition of study into daily practical Latin (phrases, mottoes, abbreviations, and quotations) as well as Latin authors and adapted segments of their works. The class focuses on becoming proficient with forms and vocabulary, analyzing forms, and translating sentences and passages from the textbook, Liber Digitalis, as well as other adapted texts. The second half of the course is spent reading real Latin (Catullus, Horace, Ovid, Cicero) using the Ovid Reader, Cicero and Sallust, and other supplements. Quizzes are based on vocabulary and forms, while class work and homework come from the textbooks.

LATIN III (Honors) (1.0 credit)

In this course, students continue their learning of the Latin language, Roman civilization, and classical mythology of Greece and Rome, with the addition of study into daily practical Latin (phrases, mottoes, abbreviations, and quotations) as well as Latin authors and adapted segments of their works. The class focuses on becoming proficient with forms and vocabulary, analyzing forms, and translating sentences and passages from the textbook, Liber Digitalis, as well as other adapted texts. The second half of the course is spent reading real Latin (Catullus, Horace, Ovid, Cicero) using the Ovid Reader, Cicero and Sallust, and other supplements. Quizzes are based on vocabulary and forms, while class work and homework come from the textbooks. For students in the honors level course, expectations on the depth and amount of participation, assignments, and assessments are elevated beyond the expectations at the college preparatory level.



WORLD LANGUAGE

(CONTINUED)

ADVANCED PLACEMENT LATIN (1.0 credit)

The AP Latin course focuses on the in-depth study of selections from two of the greatest works in Latin literature: Vergil's Aeneid and Caesar's Gallic War. The course requires students to prepare and translate the readings and place these texts in a meaningful context, which helps develop critical, historical, and literary sensitivities. Throughout the course, students consider themes in the context of ancient literature and bring these works to life through classroom discussions, debates, and presentations. Additional English readings from both of these works help place the Latin readings in a significant context.

CLASSICAL ATTIC GREEK (1.0 credit)

In this course, students are introduced to the Greek language, Greek civilization, and classical mythology of Greece and Rome. This course offers meaningful comparison of the Latin language taught in previous courses to the parallel language of Ancient Greek (mostly Attic dialect). Studies focus on memorizing forms and vocabulary, analyzing forms, and translating sentences and passages from the textbook, From Alpha to Omega and ancillary digital flashcards. Daily quizzes are based on vocabulary and forms, while class and homework come from textbooks.

SPANISH I (College Preparatory) (1.0 credit)

This course is the first step for language acquisition offered at the Upper School level. It aims to provide students with sound fundamental skills in the areas of listening, speaking, reading, and writing. This includes a considerable emphasis on grammar and vocabulary. An additional and not less important goal is for students to appreciate cultural differences and to distinguish the diversity of the Spanish-speaking world. Every effort is made to create a comfortable environment in order to give students sufficient confidence to participate actively in class, be unafraid of making mistakes, and develop individual strategies to learn. Pair or group conversation, role-playing, and special oral presentations is regularly practiced in the class.

SPANISH II (College Preparatory) (1.0 credit)

This course establishes the foundations necessary to achieve higher-level language proficiency by expanding upon students' understanding of Spanish language structure, grammar, and vocabulary. Students use a wide range of vocabulary, emphasizing usable phrases, to communicate on a variety of topics. In addition to grammar and vocabulary, the text explores the geography and culture of the Spanish-speaking world. Students attain a novice-mid level of proficiency in the four skills of listening, speaking, reading, and writing, develop an extensive vocabulary of usable words, phrases, and grammatical structure through appropriate reading and listening activities, use the present, present-progressive, past, imperfect, and future tenses as well as command forms (subjunctive) of common verbs, and engage in conversation and develop a degree of fluency in communication through extensive practice with prepared and unprepared speaking and writing activities.

SPANISH II (Honors) (1.0 credit)

Spanish II Honors is similar in scope to the Spanish II course. For example, students in Spanish II Honors encounter the same learning materials as Spanish II and move at the same pace. The courses are differentiated in that the proficiency level required of students in Spanish II Honors is more demanding than in the Spanish II college preparatory course.



WORLD LANGUAGE

(CONTINUED)

SPANISH III (College Preparatory) (1.0 credit)

This course is taught exclusively in Spanish, and students are expected to use only Spanish during class. Students continue to develop their language skills by producing meaningful, authentic communication tied to a broader cultural understanding. Students demonstrate proficiency in the domains of listening, speaking, reading, and writing by actively communicating about topics helpful when traveling abroad. By comparing Hispanic cultures with their own, students recognize the importance of respecting other cultures in the world community.

SPANISH III (Honors) (1.0 credit)

This course is taught exclusively in Spanish, and students are expected to use only Spanish during class. Students continue to develop their language skills by producing meaningful, authentic communication tied to a broader cultural understanding. Students demonstrate proficiency in the domains of listening, speaking, reading, and writing by actively communicating about topics helpful when traveling abroad. By comparing Hispanic cultures with their own, students recognize the importance of respecting other cultures in the world community. Spanish III Honors students will encounter the same learning materials as Spanish III and will move at the same pace. The courses will be differentiated in that the proficiency level required of students in Spanish III Honors is more demanding than in the Spanish III college preparatory course.

PRE-AP SPANISH (Honors) (1.0 credit)

This class is conducted exclusively in the target language and represents the first level of the advanced stage in language acquisition. It has been designed for students who are planning either to enroll in our AP Spanish Language & Culture course or to take Spanish in college the following year. The primary objectives of this class are to sharpen communicative skills and create students who feel comfortable with people and cultures different from their own and who are willing to embrace a global perspective.

ADVANCED PLACEMENT SPANISH LANGUAGE AND CULTURE (1.0 credit)

The AP Spanish Language and Culture course is a rigorous course taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication: interpretive, interpersonal, and presentational. It has been designed for students who wish to continue their language studies beyond school requirements and who are planning to take Spanish in college the following year. The course focuses on the integration of authentic resources including audio recordings, literature, essays, and articles with the goal of providing a rich, diverse learning experience.



MATHEMATICS

ALGEBRA I (College Preparatory) (1.0 credit)

Prerequisite: Pre-Algebra

This first-year course in Algebra is intended to introduce many of the basic concepts that will be expanded upon as the student proceeds through the mathematics curriculum. Among the topics encountered are number systems, functions and relations, graphs, solving equations and inequalities, systems of equations, polynomials and factoring, and exponents and radicals. In addition, students may be exposed to various other areas, including matrix algebra and probability. The emphasis at this level is upon a thorough grounding in the methods and algorithms of equation and problem solving.

GEOMETRY (College Preparatory) (1.0 credit)

Prerequisite: Algebra I

Geometry focuses on various approaches to problem solving using logical reasoning. Students are required to complete proofs using a classic two-column format. Students are also taught to use sketches to brainstorm potential strategies before writing out proofs. Two central concepts are congruency and similarity. The course includes extensive study of the properties associated with various types of triangles, quadrilaterals, other polygons, and circles and ends with a unit on area and volume. Basic algebra skills are reinforced through the application of concepts.

GEOMETRY (Honors) (1.0 credit)

Prerequisite: Algebra I

This course is an Honors level course that focuses on various approaches to problem solving using logical reasoning at a more advanced level compared to the college preparatory Geometry course. For most students, this course includes increased rigor in proofs required of students. Various approaches to proofs beyond the traditional two-column proofs of Upper School Geometry are explored. Two central concepts are congruency and similarity. The course includes extensive study of the properties associated with various types of triangles, quadrilaterals, other polygons, and circles and ends with a unit on area and volume. Students are also introduced to basic Trigonometry concepts in this class. Basic algebra skills are reinforced through the application of concepts.

ALGEBRA II (College Preparatory) (1.0 credit)

Prerequisite: Algebra I and Geometry

Algebra II is an extension of students' first year exposure to Algebra and provides a solid preparation for Precalculus mathematics. Students' equation solving skills are expanded to examine second degree and higher order equations more completely. Graphing skills are emphasized for first- and second-degree equations and inequalities, and these skills are used to further emphasize the relationship between functions and the graphical representation of these functions. Students are introduced to elementary statistical ideas and extend their elementary matrix skills and introductory probability theory. Exponential and radical expressions are explored and the field of complex numbers is introduced through these expressions. Students are also introduced to exponential and logarithmic functions and examine their uses in problems of growth and decay.

ALGEBRA II (Honors) (1.0 credit)

Prerequisite: Algebra I and Geometry

The topics and goals of this course include those of the Algebra II course, along with an in-depth analysis of trigonometric ratios, functions, and equations. Topics are studied at a greater depth than in the non-honors section, and students are expected to more completely demonstrate the ability to incorporate a variety of skills in their problem-solving approaches. Students in this course are expected to be on track for AP Calculus, and there is greater emphasis on the analytic skills necessary for that level of work.



MATHEMATICS

(CONTINUED)

COLLEGE ALGEBRA (College Preparatory) (1.0 credit)

Prerequisite: Algebra II; Pre-approval required

This course is designed to reinforce and strengthen concepts introduced in Algebra I and II. Additional concepts include a comprehensive unit on Trigonometry including the Law of Sines and Law of Cosines. This class is primarily suited for Seniors who need to strengthen their math skills in preparation for their first collegiate-level math class.

PRECALCULUS (College Preparatory) (1.0 credit)

Prerequisite: Algebra II

Precalculus builds on the foundations mastered in Algebra I and II, as well as ideas incorporated from Geometry. Topics include algebraic functions, transcendental functions (exponential, logarithmic, and trigonometric), complex numbers, trigonometry, limits, and continuity. The graphing calculator is utilized extensively in this course as a means of arriving at a solution to a variety of different scenarios including solving systems of equations and graphical analysis. An emphasis is placed on strengthening and refining those skills necessary for Calculus and other higher-level mathematics and science courses. A secondary intention of this course is to develop in students a sense of the interdependence of various branches of mathematics.

PRECALCULUS (Honors) (1.0 credit)

Prerequisite: Algebra II

The purpose of this course is to provide students with an introduction to a wide variety of advanced mathematical topics. At the end of this course, the student is well prepared for AP Calculus. The topics covered in this course include but are not limited to an introduction to sequences and series, analysis and graphing of functions (both algebraic and transcendental), polar coordinates and complex numbers, vector and matrix mathematics, and an introduction to probability and combinatorics. In addition, readings from various sources are used as the basis of discussion to widen the students' mathematical horizons.

PROBABILITY AND STATISTICS (College Preparatory) (1.0 credit)

Prerequisite: Algebra II

Probability and Statistics may be taken upon successful completion of Algebra 2. This is a great option for students who have completed Algebra 2 or Precalculus who prefer a statistics approach to higher-level math. This course can also be taken in conjunction with the Calculus sequence. Unlike AP Statistics, this course allows for ample data collection and analysis with a hands-on field approach. Topics include but are not limited to random variables, data organization, averages and variation, elementary probability theory, binomial distributions, normal distributions, sampling distributions, confidence intervals, and hypothesis testing.

DISCRETE MATHEMATICS (Honors) (1.0 credit)

Prerequisite: Precalculus

This course surveys topics from discrete (finite) mathematics and includes an in-depth study of graph theory. The course is designed to offer students who may need more time to be ready for the rigors of a Calculus course an alternative during their Junior or Senior year. It is further aimed at reinforcing and sharpening their current algebraic skills. Discrete math is also available for students in Calculus who wish to become familiar with non-analysis mathematical fields. The topics covered in this course include but are not limited to an introduction to alternate base systems, matrices, vectors, quaternions, combinatorics, permutations, isomorphic groups, probability, statistics, fractals, and a semester unit on graph theory. The course is structured as much as possible to allow students to discover various and sundry mathematical connections, relationships, and formulas.



MATHEMATICS

(CONTINUED)

CALCULUS (Honors) (1.0 credit)

Prerequisite: Precalculus

Although offered as an alternative to AP Calculus AB, this course is also intended to offer students the breadth and rigor of a first semester university course. As it is not tied to the College Board curriculum and does not require preparation for a specific testing format (no multiple-choice question emphasis), the pacing of this course has some flexibility allowing more time for the reinforcement of essential ideas. The topics presented in this course include but are not limited to limits, the derivative as the rate of change of a function, applications of the derivative, the integral as a sum of an infinite series, applications of the definite integral, and elementary methods of integration.

ADVANCED PLACEMENT STATISTICS (1.0 credit)

Prerequisite: Precalculus

The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

ADVANCED PLACEMENT CALCULUS AB (1.0 credit)

Prerequisite: Precalculus Honors

The AP Calculus AB course focuses students' understanding of calculus concepts and provides experience with methods and applications. Through the use of big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), the course becomes a cohesive whole, rather than a collection of unrelated topics, requiring students to use definitions and theorems to build arguments and justify conclusions. The course features a multi-representational approach to calculus with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential.

ADVANCED PLACEMENT CALCULUS BC (1.0 credit)

Prerequisite: AP Calculus AB

The AP Calculus BC course applies the content and skills learned in AP Calculus AB to parametrically defined curves, polar curves, and vector-valued functions; develops additional integration techniques and applications; and introduces the topics of sequences and series.



SCIENCE & INTEGRATED SCIENCE

BIOLOGY (College Preparatory) (1.0 credit)

Biology is designed to be a broad-based course to introduce students to the diverse curriculum which comprises the biological sciences, but the course has narrowed the breadth of curriculum in favor of a thorough examination of core concepts and processes in biology. The course covers the basic organization of matter, cells, use of energy and metabolism, genetics, evolution, biological diversity, ecology, animal behavior, and animal systems. Scientific vocabulary and lab skills are very important in this course, and their mastery is fundamental to success in the course and the development of scientific literacy. This course also identifies the many contributions of biological science to the way in which we live and the quality of our lives. Science process skills (observation, measurement, graphing, prediction, and writing) are emphasized through laboratory and field experience.

BIOLOGY (Honors) (1.0 credit)

Prerequisite: Physical Science or Advanced Physical Science

Biology Honors, like the college preparatory course, is a course designed to acquaint students with the broad areas of interest that comprise modern biology. Biology includes an extensive range of topics from the molecular and cellular fields through genetics and evolution, energy, and metabolic systems, and onto biodiversity, anatomy and physiology, and the medical sciences. This course is designed to introduce much of the field of biology, while presenting specific details designed to challenge, excite, and prepare students for the topics that their college biology courses, including AP Biology, will likely focus upon. The Honors Biology course challenges students with more demanding outside reading and writing assignments, more difficult testing, and a classroom environment which recognizes the students' inherent abilities. Completion of this course will provide students with greatly improved biological vocabulary, a real appreciation for the scientific method, considerable laboratory experience, valuable experience in analyzing and interpreting a data set, consideration of many of the applications of biology in everyday life, and a keen appreciation for the beauty and complexity of organisms and biological processes.

ADVANCED PLACEMENT BIOLOGY (1.0 credit)

Prerequisite: Biology or Biology Honors and Chemistry or Chemistry Honors

In the AP Biology course, students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. **LABORATORY REQUIREMENT:** This course requires that 25 percent of the instructional time spent in hands-on laboratory work with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Students should be able to describe how to collect data, use data to form conclusions, and apply their conclusions to larger biological concepts. Students should report recorded data and quantitative conclusions drawn from the data with appropriate precision (i.e., significant figures). Students should also develop an understanding of how changes in experimental design would impact the validity and accuracy of results.



SCIENCE & INTEGRATED SCIENCE

(CONTINUED)

CHEMISTRY (College Preparatory) (1.0 credit)

Corequisite: Geometry

This course is a foundational study of the principles of chemistry. The course utilizes and builds students' mathematic and communication skills through a discussion of chemistry that is relevant to students' everyday experiences. The course covers the following topics in sequential order: classification of matter and change processes, scientific measurement and dimensional analysis, atomic structure and electrons, understanding and using the periodic table as a tool, chemical bonding, nomenclature, mole calculations, chemical reactions, stoichiometry, gas behavior, solutions, and acid/base chemistry. The significant laboratory component of the course emphasizes safety, cooperative learning, hands-on laboratory skills, and data manipulation through both experiential discovery and reinforcement of classroom topics.

CHEMISTRY (Honors) (1.0 credit)

Corequisite: Algebra II

Chemistry Honors is an introductory chemistry course designed to challenge the hard-working and high-achieving science student in the underlying principles of chemistry. This modern approach to chemistry is significant to everyday life experiences and calls upon students' mathematic and critical thinking skills. The Chemistry Honors course is structured to be a solid foundation for more advanced study including but not limited to AP Chemistry. The scope and sequence are similar in content to Chemistry but broader and deeper in the treatment of topics, including more aspects of the science and generally expecting greater performance and independence from students. Students in Chemistry Honors may move through content at an accelerated pace, cover additional concepts, execute higher-level mathematical manipulations, and be required to complete more complex assignments and assessments.

ADVANCED PLACEMENT CHEMISTRY (1.0 credit)

Prerequisite: Chemistry Honors, Algebra II Honors, Completion of Summer Packet; Corequisite: Precalculus Honors

AP Chemistry is a second-year Upper School course in which students use their extensive science and math background to decipher problems involving chemistry and critical thinking. Enrolled students are required to have strong foundations in introductory chemistry including use of the periodic table, scientific measurement and dimensional analysis, atomic structure and electrons, bonding, nomenclature, chemical reactions, stoichiometry, gas behavior, solutions, and acid/base chemistry. AP Chemistry parallels a first-year college course for chemistry majors. This course dives deeper into more complex topics in chemistry including bonding theory, molecular geometry, thermodynamics, kinetics, equilibrium, and electrochemistry. Twenty-five percent of instructional time is devoted to inquiry-based laboratory investigations which empower students to design experiments, analyze data, and form conclusions in a collaborative, hands-on environment.

PHYSICS (College Preparatory) (1.0 credit)

Prerequisite: Geometry and Chemistry; Corequisite Recommendation: Algebra II

Physics is a first-year, inquiry-based awakening to the universe around us and how we interact with our universe through daily life. This class explores the ideas of mechanics, sound, and electricity using hands-on experiences, labs, examples, and discussions. Students taking conceptual Physics learn to interpret, observe, measure, and explain some of the most common examples of physics as viewed in the real world after completing the course. Through opportunities to work cooperatively in the lab, students engage with physics by creating and testing hypotheses. In addition, students have opportunities to effectively communicate the results of their investigations to their peers while taking this course. A strong math background is not required; however, a basic knowledge of algebra greatly aids students in being successful in conceptual Physics.



SCIENCE & INTEGRATED SCIENCE

(CONTINUED)

PHYSICS (Honors) (1.0 credit)

Prerequisite: Algebra II Honors and Chemistry; Corequisite Recommendation: Precalculus or Precalculus Honors

Physics Honors is first-year, inquiry-based study of our universe and our physical relationship with the matter and energy within. In this course, students explore concepts of motion, energy, and electricity with an introduction to magnetism and optics. Throughout the course, students develop and test hypotheses, communicating and inferring from collected data to prove some of the most important theories and ideas in Physics. Students learn how to analyze sources of error, solve problems, and how to report their results to communicate what they learn in class to their peers. Students in Physics Honors use critical thinking and problem-solving skills to analyze and solve problems associated with the physical universe they experience every day. In addition to learning in the classroom, this course features a comprehensive lab component that introduces students to the protocols of lab safety, practical laboratory skills, and data analysis.

ADVANCED PLACEMENT PHYSICS I (1.0 credit)

Prerequisite: Algebra II Honors, Physics placement test; Corequisite: Precalculus or Precalculus Honors

AP Physics I is an algebra-based, introductory college-level physics course. It is the equivalent of a first-semester introductory college course in algebra-based physics. Students cultivate their understanding of physics by developing models of physical phenomena through inquiry-based investigations to develop scientific critical thinking and reasoning skills. Students build their understanding of physical models as they learn to explore and solve problems in topics such as kinematics, dynamics, energy, momentum, rotational motion, oscillations, and fluids. This rigorous course requires that twenty-five percent of instructional time be spent in hands-on laboratory work with an emphasis on inquiry-based investigations that provide students with opportunities to demonstrate the foundational physics principles and apply the science practices. In the lab, students engage in the science practices as they design plans for experiments, make predictions, collect and analyze data, apply mathematical routines, develop explanations, and communicate about their work. No prior coursework in physics is necessary. Students should have successfully completed Geometry and Algebra II Honors and be concurrently in Precalculus Honors. Although the AP Physics I course includes the basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics I course itself.

ADVANCED PLACEMENT PHYSICS C (1.0 credit)

Approval required

AP Physics C consists of two courses — Physics C: Mechanics and Physics C: Electricity and Magnetism. Mechanics is typically taught in the first semester, while Electricity and Magnetism (E&M) is taught in the second semester. AP Physics C: Mechanics is a calculus-based physics course. It covers kinematics, Newton's Laws of Motion including work, energy, and power, systems of particles and linear momentum, circular motion and rotation, oscillations, and gravitation. AP Physics C: Electricity and Magnetism is also a calculus-based physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics, conductors, capacitors, and dielectrics, electric circuits, magnetic fields, and electromagnetism. Each AP Physics C course also includes a hands-on laboratory component. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting where they direct and monitor their progress. Students spend a minimum of twenty-five percent of instructional time engaged in hands-on laboratory work.



SCIENCE & INTEGRATED SCIENCE

(CONTINUED)

MARINE BIOLOGY: INVERTEBRATES (College Preparatory) (0.5 credit)

Florida is home to many unique aquatic environments, both marine and freshwater. This course involves the study and exploration of many of these amazing areas and organisms that make up our state. The semester course covers the marine ecosystem with an emphasis on the aquatic *invertebrate* organisms. Field activities are designed to mimic real world field work being done by fishery biologists.

MARINE BIOLOGY: VERTEBRATES (College Preparatory) (0.5 credit)

Florida is home to many unique aquatic environments, both marine and freshwater. This course involves the study and exploration of many of these amazing areas and organisms that make up our state. The semester course covers the marine ecosystem with an emphasis on the aquatic *vertebrate* organisms. Field activities are designed to mimic real world field work being done by fishery biologists.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (1.0 credit)

Prerequisite: Biology and Chemistry

The AP Environmental Science course engages students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. Although there are no specific AP Environmental Science labs or field investigations required for the course, students have the opportunity to spend a minimum of twenty-five percent of instructional time engaged in hands-on, inquiry-based laboratory and/or fieldwork investigations.

INTRODUCTION TO COMPUTER SCIENCE (Honors) (1.0 credit)

Introduction to Computer Science introduces students to computer programming using Python. Students learn variable declaration and processing, mathematical functions, decision structures, loops, and arrays. Students then integrate these concepts into projects spanning automation, machine learning, and web development. In addition to coding, students learn about high-end keyboard design and practice proper touch-typing technique to optimize efficiency in the digital space. This class is intended for students interested in pursuing engineering and applied science in their future.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES (1.0 credit)

Prerequisite: Algebra I

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.



SCIENCE & INTEGRATED SCIENCE

(CONTINUED)

ADVANCED PLACEMENT COMPUTER SCIENCE A (1.0 credit)

Prerequisite: Algebra II

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

PRINCIPLES OF BIOMEDICAL SCIENCE (Honors) (1.0 credit)

In this course, students explore concepts of biology and medicine as they take on roles of different medical professionals to solve real-world problems. Over the course of the year, students are challenged in various scenarios including investigating a crime scene to solve a mystery, diagnosing and proposing treatment to patients in a family medical practice, tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems.

HUMAN BODY SYSTEMS (Honors) (1.0 credit)

Prerequisite: Biology

In the Human Body Systems course, students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases, and often play the role of biomedical professionals to solve medical mysteries. Students practice problem-solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

ENGINEERING ESSENTIALS (Honors) (1.0 credit)

Engineering Essentials offers a multidisciplinary approach to teaching and learning foundational concepts of engineering practice, providing students opportunities to explore the breadth of engineering career opportunities and experiences, and solve engaging and challenging real-world problems. By inspiring and empowering students with an understanding of engineering and career opportunities, Engineering Essentials broadens participation in engineering education and the engineering profession.

INTRODUCTION TO ENGINEERING DESIGN (Honors) (1.0 credit)

Prerequisite: Geometry

Introduction to Engineering Design (IED) is an Upper School engineering course in the PLTW Engineering Program. In IED, students explore engineering tools and apply a common approach to solving engineering problems through an engineering design process. Using the activity-project-problem-based (APB) teaching and learning pedagogy, students progress from completing structured activities to solving open-ended projects and problems requiring them to plan, document, communicate, and develop other professional skills. Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to various real-world problems. They work individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3D modeling software.



FINE ARTS

MUSIC

ADVANCED MUSIC ENSEMBLE (College Preparatory) (1.0 credit)

Advanced Music Ensemble consists of Upper School students, grades 9-12, playing a wide array of diverse and progressive music. The ensemble is open to all instrumentation including winds, voice, percussion, strings, guitars, piano, etc. There are many performance opportunities for students. Last year, our students performed over 200 pieces of music during the school year including a trip and performance in Orlando. Participants in this ensemble must be enthusiastic, hardworking, open-minded, and mature. Self-directed projects are an important part of class, and opportunities for composition and arranging are offered frequently. Members are afforded the use of all studio equipment for recording and software for music composition.

The Arts Conservatory* for music is a rigorous subset of the regular Upper School Advanced Music Ensemble. All conservatory members are enmeshed with non-conservatory members in the class. The focus of this program is to give advanced students opportunities to expand their technical facility on their instrument/voice, work on performance production, study composition/arranging, and become immersed in leadership. All conservatory music students are required to co-produce one recital a semester; senior members must produce a full-length recital by themselves by the end of the year.

PIANO TECHNIQUES AND PERFORMANCE (College Preparatory) (0.5 credit)

In this course, students learn a basic musical foundation at the piano that can also apply to other areas outside of this course. Students learn beginner theory and musical skills through performance and exercises on the piano. Students also learn fundamentals at the piano, such as scales, arpeggios, and note reading. By the end of each semester, students can independently perform on a recital to include one solo work and one duet or ensemble performance. The goal is for students to learn and play a varied repertoire from solo to collaborative piano pieces in a variety of genres.

ART AND SCIENCE OF DIGITAL AUDIO (Honors) (0.5 credit)

In this project-based class, students learn fundamental Digital Audio Workstation (DAW) skills to explore sound, composition, and performance and change the way they think about making music. This course touches on all of these fundamentals and covers aspects of production, sampling, effects processing, and workflow inside DAW software. No prior music experience required.

ADVANCED PLACEMENT MUSIC THEORY (1.0 credit)

Pre-Approval Required

In the AP Music Theory course, students learn to recognize, understand, describe, and produce the basic elements and processes of performed and notated music. Course content extends from the fundamentals of pitch, rhythm, timbre, and expression to concepts of harmonic function, phrase relationships, and tonicization. Students study these concepts in heard and notated music with emphasis on identification and analysis of musical features, relationships, and procedures in full musical contexts. Repertoire for analysis on the AP Music Theory exam ranges from European Baroque pieces to folk and popular music from across the globe. Students develop musicianship skills through melodic and harmonic dictation, sight singing, and error detection exercises. Writing exercises further emphasize the foundational harmonic and voice leading procedures of Western art music.

**Members of the Distinguished Scholar Program in Arts Conservatory are enrolled with their non-conservatory members in fine arts courses. As members of the program, they receive a GPA bump for these courses as outlined in the Arts Conservatory guidelines.*



FINE ARTS

PERFORMING ARTS

INTRODUCTION TO THEATER / THEATER I (College Preparatory) (0.5 or 1.0 credit)

Upper School students are offered Theater as a year-long elective. Drama in education allows students to hone life skills through a variety of activities facilitated by a teacher; among those skills are public speaking, teamwork, confidence, memorization, empathy, rejection, and working towards deadlines. This course heavily focuses on acting and making choices that are rooted in the text. Students gain insight into the artistry as an ensemble, working closely with their classmates. In addition to their development as actors, students also develop musical theater skills. Students gain a greater understanding of acting and singing through learning about composers and lyricists and how their contributions affect the structure of the show. Students also develop a deep understanding of collaboration and communication, essential skills in theater. Each year, students build on the acquired skills from the previous years in order to better develop physical and emotional characters in addition to honing nuanced moments throughout dialogue and performance. Students have the opportunity to attend the Florida Thespian Festival at the end of Semester 1.

THEATER II-IV (College Preparatory) (1.0 credit)

Pre-approval required

These upper division theater courses focus heavily on acting and making choices that are rooted in the text. Students gain insight into the artistry as an ensemble, working closely with their classmates. In addition to their development as actors, students also develop musical theater skills. Students gain a greater understanding of acting and singing through learning about composers and lyricists and how their contributions affect the structure of the show. Students also develop a deep understanding of collaboration and communication, essential skills in theater.

Students accepted into the theater discipline of the Arts Conservatory* join students in the Upper School theater classes on a more rigorous track focused on character development and concept understanding as laid out by the work of Robert Cohen and Uta Hagen. In addition to their roles as actors and creative thinkers, Arts Conservatory students in this class act as mentors for underclassmen and help guide the development of those seeking to better their theater skillset.

Arts Conservatory students also serve a leadership role, representing Performing Arts cross-divisionally and acting as departmental ambassadors for the program. Students compete at the Florida Thespian Festival at the end of Semester 1.

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FINE ARTS

VISUAL ARTS

ART I (College Preparatory) (0.5 credit)

This course is a foundational art course designed to expose students to a wide variety of creative mediums, including drawing, painting, and printmaking. Understanding how the human eye sees the world and how artists developed a series of techniques and concepts to aid in creating the illusion of form, space, and light on a two-dimensional surface are major topics of this class. Students also study paintings, drawings, and other works of art that emphasize ideas and concepts related to various studio projects. This activity facilitates an understanding and appreciation of art and art history. Art I is a prerequisite for Drawing and Painting.

ART II (College Preparatory) (0.5 credit)

Prerequisite: Art I

Pre-approval required

Using contemporary art techniques as the basis, students produce meaningful and detailed work throughout the semester. As the course progresses, students are inspired by various types of art from around the world and use that knowledge to build their final project using a variety of media types.

CERAMICS I (College Preparatory) (0.5 credit)

Earth, air, fire, and water combine in Ceramics I as students create one-of-a-kind objects by learning step-by-step techniques. This course focuses on developing the skills needed to prepare clay, form it, and understand the stages of its development towards making useful ceramic treasures. Students feel the accomplishment of using their hands to turn raw clay into objects of beauty and function. This project-based course begins with hand-building skills and moves along with progressively more challenging structures using these techniques. Wheel throwing, forming, and glazing techniques are explored and developed. Activities are supported by appropriate planning skills for building or throwing. Looking at style, form, and function in ceramics supports the development of student creativity.

CERAMICS II (College Preparatory) (0.5 credit)

Prerequisite: Ceramics I

Pre-approval required

In this course, students review and extend their skills from Ceramics I and explore more advanced building methods and techniques. Planning and design aid to produce more complex forms in Ceramics II. Increased exposure to examples of style and techniques support student learning and creativity. Ceramic makers produce functional items that are appealing with a form that is strong and durable. Craftsmanship and mastery of skills move students towards a higher quality of finished work through building, throwing, texturing, and glazing experimentation. Students create a body of ceramic objects and also develop a greater variety of ceramic objects for their personal portfolios.



FINE ARTS

VISUAL ARTS

(CONTINUED)

SCULPTURE: MATERIALS AND METHODS (College Preparatory) (0.5 credit)

Sculpture: Materials and Methods is an introduction to sculpture that introduces students to the rich history of sculpture and the world of contemporary art today. Students learn various techniques ranging from clay to plaster, wood, metal, and found object assemblage. A strong focus of this course is translating ideas from concepts to drawings to 3D objects. In addition, structural considerations such as armatures, sub-structures, and joinery methods are explored. As a contemporary art course, sculpture, in this sense, is not limited to statuary and portraiture. It is an all-encompassing field that explores the potential of 3D objects through form, material, and process.

CREATIVE WOODWORKING AND PRODUCTION (College Preparatory) (0.5 credit)

Creative Woodworking and Production is a course intended to introduce students to general woodworking practices. Students expand their knowledge and experience through various projects, lessons, and vocabulary. Students are expected to learn about and safely use hand tools, power tools, and woodworking machinery. The projects are designed to give students as much experience as possible by using many different machines and tools. There is a collaboration with Performing Arts classes and the One School Musical to design sets and stage props.

DIGITAL MEDIA AND DESIGN (College Preparatory) (0.5 credit)

Digital Media and Design is a premiere broadcasting class in which students produce weekly video segments of athletics, current events, school news, short skits, and comedic sketches. During this course, students are responsible for creating engaging, funny, and unique content. In addition to content creation, students also serve as digital media designers, video editors, broadcast journalists, and filmmakers.

DRAWING AND PAINTING (Honors) (0.5 credit)

Prerequisite: Art I; Pre-approval required

This course builds upon techniques and concepts learned in Art I. This course introduces students to the methods and techniques of painting and is designed to teach students how to "see" and render realistically and think creatively. Students learn to understand and utilize the specific ideas, skills, and concepts which enable artists to create the illusion of space, form, and light on a 2D surface. The history, techniques, and styles of painting are examined through research, lectures, and demonstrations with a growing focus on contemporary art and art of the twentieth century. From the outset of this course, students work to develop their creative vision through original projects focusing on conceptual ideas.

GLOBAL ART AND VISUAL CULTURE (Honors) (0.5 credit)

Global Art and Visual Culture is an introduction to the visual arts from a global perspective. Artistic expression varies from culture to culture, and what constitutes artistic expression depends on the norms, attitudes, values, beliefs, and social practices of a given culture and timeframe. Students are introduced to global art methods, object-based research and creation, and key concepts in art history as they gain knowledge of an array of global visual cultures.



FINE ARTS

VISUAL ARTS

(CONTINUED)

DIGITAL FABRICATION AND ROBOTIC ARTS (Honors) (0.5 credit)

Digital Fabrication and Robotic Arts is an introductory course to teach students how to create art and develop practical solutions using the latest digital fabrication and interactive technologies. The semester is broken into three parts each with a specific focus. The first section covers vector drawing in 2D using Adobe Illustrator or similar software, and projects are produced with a laser cutter or CNC router. The second section covers 3D-drawing using Autodesk Fusion 360 or similar software, and projects are printed with a 3D printer. The final section covers basic electronics and interactive arts using Arduino microcontrollers and software to program and create interactive projects.

INTRODUCTION TO ENGINEERING DESIGN (Honors) (1.0 credit)

Prerequisite: Geometry

Introduction to Engineering Design (IED) is an Upper School engineering course in the PLTW Engineering Program. In IED, students explore engineering tools and apply a common approach to solving engineering problems through an engineering design process. Using the activity-project-problem-based (APB) teaching and learning pedagogy, students progress from completing structured activities to solving open-ended projects and problems requiring them to plan, document, communicate, and develop other professional skills. Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to various real-world problems. They work both individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3D modeling software.

PUBLICATIONS (College Preparatory) (1.0 credit)

The main objective of this course is to create a yearbook that reflects our school community and equally reflects each student in the student body, Preschool through Grade 12. The goal as a class is to present a yearbook in May to the faculty, staff, and student body that reflects the experiences of the school year and shows an accurate representation of the school community.

Publications is an acceptable Fine Arts credit for non-Arts Conservatory members. It does not count as a required class for members of the Distinguished Scholar Program in Arts Conservatory.

ADVANCED PLACEMENT ART HISTORY (1.0 credit)

Pre-approval required

In Advanced Placement Art History, students explore the history of art across the globe from prehistory to the present. The class includes analysis of works of art through observation, discussion, reading, and research. Students evaluate works of art from different eras and cultures, see connections to artistic traditions, styles, or practices in a work of art, and develop a theory about the meaning of a work of art.



FINE ARTS

VISUAL ARTS

(CONTINUED)

ADVANCED PLACEMENT DRAWING (1.0 credit)

Prerequisite: Portfolio submission; Pre-approval required

AP Drawing is a studio portfolio class. This course represents the highest level of drawing that can be taken at Oak Hall School. The students selected for this class must sustain a high quality of work and motivation to complete the rigorous program. All work generated by this class is intended to build the quality of the portfolio either directly or indirectly so as to showcase each student's unique strengths. Students work throughout the year to develop a clear artistic voice. The AP Drawing portfolio should demonstrate an understanding of all aspects and techniques of drawing. Students also use the elements of value, light, and shade, line quality, rendering of form, composition, surface manipulation, and the illusion of depth. They use various drawing and painting mediums to achieve effective expression and are actively encouraged to perform in-depth experimentation to effectively support the conceptual narrative they develop through their cohesive body of work.

ADVANCED PLACEMENT 2D ART AND DESIGN (1.0 credit)

Prerequisite: Portfolio submission; Pre-approval required

AP 2D Art and Design is a studio portfolio class. This course represents the highest level of 2D design that can be taken at Oak Hall School. The students selected for this class must sustain a high quality of work and motivation to complete the rigorous program. All work generated by this class is intended to build the quality of the portfolio either directly or indirectly so as to showcase each student's unique strengths. Students work throughout the year to develop a clear artistic voice. The AP 2D Art and Design portfolio should demonstrate an understanding of the elements of art and principles of 2D designs. Students use the elements of value, light, and shade, line quality, rendering of form, composition, surface manipulation, and the illusion of depth. They also use various media such as drawing, painting, collage, photography, and/or computer graphics to achieve effective expression and are actively encouraged to perform in-depth experimentation to effectively support the conceptual narrative they develop through their cohesive body of work.

ADVANCED PLACEMENT 3D ART AND DESIGN (1.0 credit)

Prerequisite: Portfolio submission; Pre-approval required

AP 3D Art and Design is a studio portfolio class. This course represents the highest level of 3D art that can be taken at Oak Hall School. The students selected for this class must sustain a high quality of work and motivation to complete the rigorous program. All work generated by this class is intended to build the quality of the portfolio either directly or indirectly so as to showcase each student's unique strengths. Students work throughout the year to develop a clear artistic voice. The AP 3D Art and Design portfolio should demonstrate an understanding of the elements of art and principles of 3D design. Students use various media to achieve artistic expression and are actively encouraged to perform in-depth experimentation to support the conceptual narrative they develop through their cohesive body of work.

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PHYSICAL EDUCATION

HEALTH/LIFE MANAGEMENT SKILLS (College Preparatory) (0.5 credit)

In this course, students explore various topics related to health and well-being as well as practical life skills. The objective is to help prepare students to make responsible choices and to create functional patterns of behavior to carry with them throughout their life. This course is created for and tailored to the students' interests and needs. Topics may include but are not limited to, financial management, nutrition, fitness, substance abuse, sex and reproduction, social media, and relationships. *This course is available online only through FLVS.*

STRENGTH & CONDITIONING (College Preparatory) (0.5 credit)

Strength & Conditioning is designed to help students identify the areas of fitness, health, and/or athletic development that they desire to enhance through training. The purpose of the course is to provide students the opportunity to assess and develop areas of fitness to help each reach their personal goals. Areas may include power lifting, speed and agility training, jump training, general fitness, aerobic training, metabolic training, HIIT, or various other health or performance-related programming.