



KHAN LAB SCHOOL

Upper School Curriculum Guide

2025-26

Upper School (Grades 9-12)

Contents

Upper School (Grade 9-12) Course Information	4
Graduation Requirements	4
Upper School Scheduling Suggestions	6
Example 4-Year Sequence	7
Khan Lab School University of California Approved Courses	9
A Note on Specific Subject Areas	10
Mathematics	10
Science and Computer Science at KLS	10
World Languages	10
Upper School Course Descriptions (Grades 9-12)	12
English	12
Methods and Meaning: The Art of Storytelling (1 credit)	12
(new!) Narrative Adaptations (1 credit)	12
American Literature (1 credit)	12
History	13
US History (1 credit)	13
Government and Politics (1 credit)	14
World History (1 credit)	14
Mathematics	15
Multivariable Calculus (1 credit)	16
Linear Algebra (1 credit)	17
Data Science (1 credit)	17
Science	17
General Biology: BIO 10 (1 credit)*	17
Fundamentals of Chemistry: CHEM 25 (1 credit)*	17
General Physics: Mechanics: PHYS 2A (1 credit)*	18
General Physics: Electricity and Magnetism: PHYS 2B (1 credit)*	18
World Languages	19
Spanish 1 & 2 (SUMMER) (2 credits)	19
Spanish 3 (1 credit)	19
Spanish 4 (1 credit)	19
Advanced Cultural Studies in Spanish (AC Spanish) (1 credit)	19
Visual and Performing Arts	20
Advanced Topics: Art Portfolio (1 credit)	20
Foundational Art & Design A & B (0.5 credits each)	20

Electives	21
Theater (Slot A, 0.5 credits)	21
Teaching Innovation Lab (Slot A, 0.5 credits)	21
An Exploration of Architectural Eras (Slot A, 0.5 credits)	21
Robotics and Prototyping (Slot A, 0.5 credits)	21
Marketing and Communications Lab (Slot A, 0.5 credits)	22
Historical Research (Slot A, 0.5 credits)	22
Creative Writing (Slot A, 0.5 credits)	22
Storymapping (Slot A, 0.5 credits)	22
Filmmaking (Student-Led) (Slot A, Credit/No Credit)	22
(Meta)Physics (Student-Led) (Slot A, Credit/No Credit)	23
Pathways to Mastery	23
Example Pathways Courses:	24
Applied Learning Program	26
Stepping Stones: Making Impact on a Local and Global Scale	26
Cornerstones: Finding Your Purpose	26
Capstone: Skills for Future Endeavors	26
Foothill College Appendix	27
Required forms	27
Foothill Schedule	27
Course Sequencing and Prerequisites	28

Upper School (Grade 9-12) Course Information

Graduation Requirements

Khan Lab School provides students with a course experience that prepares them for college and provides time and space to pursue an area of interest. Students must earn a minimum of 21 credits to graduate. These credits are earned by meeting the 15 college preparatory courses 'A-G' to be eligible for admission to the University of California, including successful completion of a year-long Senior Capstone course and 6 elective courses.

SUBJECT	University of California (UC) Requirements	KLS Graduation Requirements
History	Two years of history, including one year of world history, cultures or historical geography (may be a single yearlong course or two one-semester courses), and one year of U.S. history or one-half year of U.S. history and one-half year of civics or American government.	2 years (3 years recommended) World History, US History, and one elective such as Government and Politics
English	Four years of college-preparatory English that include frequent writing, from brainstorming to final paper, as well as reading of classic and modern literature. No more than one year of ESL-type courses can be used to meet this requirement.	4 years Methods and Meaning, American Literature, Comparative Literature, and Senior Seminar
Mathematics	Three years of college-preparatory mathematics that include the topics covered in elementary and advanced algebra and two- and three-dimensional geometry; a fourth year of math is strongly recommended. A geometry course or an integrated math course with a sufficient amount of geometry content must be completed. Approved integrated math courses may be used to fulfill part or all of this requirement, as may math courses taken in the seventh and eighth grades if the high school accepts them as equivalent to its own courses.	3 years (4 recommended) At least through Algebra II
Science	Two years of college-preparatory science, including or integrating topics that provide fundamental knowledge in two of these three subjects: biology, chemistry, or physics. One year of approved interdisciplinary or earth and space sciences coursework can meet one year of the requirement. Computer Science, Engineering, Applied Science courses can be used in area D	2 years (3 years recommended) Bio 10, Chem 25, and either Physics, Engineering, or a class at Foothill College.

	as an additional science (i.e., third year and beyond).	
Language other than English	Two years, or equivalent to the 2nd level of high school instruction, of the same language other than English are required. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, composition and culture. American Sign Language and classical languages, such as Latin and Greek, are acceptable, as are Native American languages. Courses taken in the seventh and eighth grades may be used to fulfill part or all of this requirement if the high school accepts them as equivalent to its own courses.	2 years (3 years recommended) of the same language
Visual & Performing Arts	One yearlong course of visual and performing arts chosen from the following disciplines: dance, music, theater, visual arts or interdisciplinary arts — or two one-semester courses from the same discipline is also acceptable.	1 year minimum from the same discipline
College-Preparatory Elective	One year (two semesters) chosen from courses specific to the elective (G) subject area or courses beyond those used to satisfy the requirements of the A-F subjects.	1 Senior Capstone + 6 elective courses

Upper School Scheduling Suggestions

As Khan Lab School students experience their high school journey, we recognize that this process culminates their unique educational experience with us. We encourage students to approach college applications with an understanding of how our school's philosophy, pedagogy, and curriculum—though not explicitly crafted for college preparation—naturally equip them for life beyond KLS. Our educational model prioritizes personal growth over conventional academic competition. This approach not only fosters lifelong learning habits but also sets our students apart in the college admissions landscape. If students or families want to get a clearer picture of what their time at KLS could look like, they should schedule an Academic Planning meeting with the Upper School Director.

Ninth Grade

The primary goal for ninth graders is to understand the high school landscape. Discover your optimal study methods and start mastering time-management skills. Always seek help when needed; our teachers are eager to assist you in mastering their subjects, making interdisciplinary connections, and developing your talents. Reading extensively is also crucial at this stage, as it significantly enhances your vocabulary and writing skills. Most students will take a ninth grade English course, World History, and Biology 10 (a dual enrollment class with Foothill College).

Tenth Grade

While college may seem distant, focusing on an engaging curriculum and excelling in your classes will set a solid foundation for future college applications. Pursue your interests both inside and outside the classroom and embrace taking risks. If you're considering a career in engineering, it might be wise to start specializing in science courses. If you are interested in the Arts, you might consider taking more advanced courses either at KLS or at Foothill.

Eleventh Grade

Continue to excel academically, as junior year experiences are pivotal—this is what colleges will see if you apply early. This is also a crucial time to build relationships with your teachers, who may write your letters of recommendation. If you're aiming to become a data scientist and haven't taken Statistics yet, this is the year to do it. Ensure you meet graduation requirements, such as completing three years of the same world language. Consider the opportunities KLS offers for you to explore your passions and show off your skills outside of the classroom (e.g. the Applied Learning program, Community Engagement program, and other Pathways to Mastery).

Senior Year

Work closely with your college counselor and work with your faculty mentors to guide your course selections for senior year. While it's advisable to continue a broad academic curriculum,

this year also offers an opportunity to focus more intensely on areas of strong interest—consult your college counselor before making any final decisions about dropping a subject. This is your last chance to take any courses at Khan Lab School that you've been interested in but haven't yet explored. Make the most of your time with your teachers, benefiting from their knowledge and support as you prepare for the next steps in your educational journey.

Example 4-Year Sequence

SUBJECT	9th Grade	10th Grade	11th Grade	12th Grade
History	World History	US History	Government and Politics	Ethnic Studies
English	Methods and Meaning	American Literature	Narrative Adaptations	Senior Seminar
Mathematics	Algebra II	Precalculus	Calculus 1 Calculus 2	Statistics / Linear Algebra / Multivariable Calculus / Data Science
Science	Foothill Bio 10	Foothill Chem 25	Foothill Physics 2A	Foothill Physics 2B / Calc-Based Physics
Language other than English	Spanish 3	Spanish 4	Advanced Cultural Studies in Spanish	
Visual & Performing Arts	Foundational Art A	Foundational Art B	AT Art Portfolio	
Electives	Storymapping	Marketing and Communication	Historical Research	Creative Writing
Applied Learning Program	Stepping Stones	Cornerstones	Cornerstones	Capstone

Khan Lab School University of California Approved Courses

This is a list of all the UC-approved courses KLS has on offer, categorized by their UC designation. Virtually every KLS student will exceed the a-g requirements for UC eligibility by simply fulfilling the KLS graduation requirements, this list is only provided as a reference. For more information, use these links: [UC requirements](#).

Khan Lab School graduation requirements meet the minimum admission requirements for the University of California (UC) & California State University (CSU) higher education systems. Students must earn a minimum grade of C- to be considered eligible to apply.

A – History/Social Science

World History
US History
Government and Politics
Ethnic Studies

B – English

Methods and Meaning
Comparative Literature
American Literature
Senior Seminar
Narrative Adaptations

C – Mathematics

Algebra I
Geometry
Algebra II
Precalculus
Calculus
Statistics
Linear Algebra
Multivariable Calculus

D – Science

General Biology: BIO 10
Fundamentals of Chemistry: CHEM 25
General Physics: Mechanics: Physics 2A
General Physics: Electricity and Magnetism: Physics 2B
Calculus-Based Physics

E – Language Other than English

Spanish 1
Spanish 2
Spanish 3
Spanish 4
Advanced Cultural Studies in Spanish

F – Visual and Performing Arts

Foundational Art & Design
Advanced Topics: Art Portfolio

A Note on Specific Subject Areas

Mathematics

Placement: Math placements are based on a variety of input data, including performance on previous courses taken (at KLS or at another school) and the iReady placement exam, given in June and again in August before school starts. In addition, students will be observed in the first few weeks of class to verify that their placement is appropriate.

Math Competitions: Some math competitions (such as [AMC](#)) are student-organized and led, and are optional for any student who qualifies. The exams are proctored by math faculty. Some competitions, such as [MOEMS](#) are organized by our math faculty, optional for any student who qualifies, and proctored five times per year by our math faculty.

Advanced Placement Tests (APs): We do **not** teach to AP tests in any of our courses at Khan Lab School. We prioritize deep dives into complex topics with real-world applications. Students are always welcome to self-study for an AP, and we will proctor the most popular APs on campus. Students often self-organize into study groups for this purpose, and many KA courses are tailored towards AP prep, but KLS teachers do not provide individualized study support for APs.

Science and Computer Science at KLS

Khan Lab School partners with Foothill College to offer several science courses listed on the Khan Lab School transcript as “Dual Enrollment Courses.” This partnership provides access to college-level laboratory facilities, while keeping together with their peers in a small-classroom environment. Note that students are evaluated by college faculty using a grading scale that is not translated into our model but is included in their official school record.

World Languages

Placement: Spanish placements are based on a variety of input data, including performance on previous courses taken (at KLS or at another school) and a placement exam, given in August before school starts. If a student is new to Spanish or new to KLS, they must have a meeting with our World Language Coordinator in addition to the written placement test, where their speaking proficiency will be evaluated. In addition, students will be observed in the first few weeks of class to verify that their placement is appropriate.

International Trip: Students enrolled in Spanish 4 or Advanced Cultural Studies in Spanish, or who are members of the Sociedad Honoraria Hispánica are eligible to participate in an optional immersive international trip organized by the school.

Mixed Grade Level Classes: Spanish and math classes at KLS are not determined by your grade level, but by your proficiency level, as measured by the placement test given at the beginning of the year. This means that we are able to have mixed grade level classes which provides ample opportunities for peer learning and support.

Khanversation Circles: A key feature of language learning at KLS is “Khanversation Circles” - an original program developed by our own faculty and supported by upper level students. When not taking a language class in a given semester, students are expected to participate in a Khanversation Circle, which is dedicated to conversation with peers at different levels of Spanish. No preparation is needed for these “circles” - it’s a chance for students to practice speaking and listening in a stress-free environment.

Sociedad De Honoria Hispánica: In 2023, our school partnered with the American Association of Teachers of Spanish and Portuguese (AATSP) and started the “Casa de la Villa” Chapter of the Sociedad Honoraria Hispánica, which provides cultural and linguistic opportunities for upper level Spanish students. Students currently enrolled in Spanish 4 or above are eligible to become members.

Languages Other Than Spanish: If a student is taking a language other than Spanish outside of KLS, they need to be able to generate their own transcript so that we can provide them with graduation credit. If there are enough students taking that language, a Khanversation Circle will be organized for them.

Upper School Course Descriptions (Grades 9-12)

English

Methods and Meaning: The Art of Storytelling (1 credit)

This is a 9th-grade project based English course that invites students to explore a rich tapestry of stories across various epochs and cultures, analyzing how narratives shape and reflect the complexities of human life. This dynamic course engages students in the art of deduction and the thrill of unraveling mysteries embedded in texts, deepening their understanding through immersive, interactive learning. Incorporating a broad spectrum of readings—from fiction to nonfiction, from ancient epics to modern tales—and various mediums, students develop a versatile toolkit for interpreting and creating stories. In this PBL environment, projects are specifically designed to be student-centered, fostering curiosity, encouraging outside-the-box thinking, and enhancing collaboration. Students engage in discussions and practices that foster clarity of communication, honing their ability to articulate ideas both on the page and verbally to their peers. Throughout the course, students become well-versed in the formal essay and are introduced to rhetoric and argument, equipping them with the skills to decode and craft diverse narratives and inspiring them to tell the stories of tomorrow.

(new!) Narrative Adaptations (1 credit)

This is an innovative project-based course that transforms how students interact with and reinterpret literary works. This course invites students to dive into a multifaceted exploration of narrative, where literature is not merely read or watched, but actively reimaged and remixed. Utilizing a variety of mediums—including short stories, novels, poems, speeches, essays, graphic novels, role-playing games, and films—students will dissect and reconstruct narratives to understand the underlying mechanics. The curriculum emphasizes the development of argument writing and speechcraft, equipping students with the rhetorical tools needed to articulate their ideas persuasively. The year culminates in a term-long project called "The Writers' Room," where students will read and select short stories that resonate with them, and collaboratively adapt these stories into short films. Narrative Adaptations is more than just a class; it's a workshop for the modern thought leader, preparing the next generation to reshape cultural narratives through innovation and insight.

American Literature (1 credit)

How is literature related to place and people? Who gets to tell stories in the United States, and why are certain stories considered classically "American" at the expense of others? Students will investigate these questions among others in order to explore how settler colonialism, race, class, nationality, gender, and immigration inform U.S. literature. We will ask how the staggering proliferation of "American" identities makes for equally diverse production of literary forms by reading poetry, prose, drama, and letters. The course aims to give students the skills to analyze

these varying modes in order to work toward building an argument and understanding how social, political, and national contexts inform American literature. Each term students will maintain a portfolio of work while also engaging in seminar discussion, project-based learning, and summative assignments to explore and test their ideas. Students will submit a formative project every term, one of which will be an extended essay that reflects their synthesis of course material.

Senior Seminar (1 credit)

What if we read not just for meaning, but for method? In Senior Seminar, students explore the intentional moves writers make to persuade, provoke, and shape reader experience—whether in fiction, essays, media, or academic texts. Drawing from texts like *Best American Short Stories of the Century*, *How to Read Literature Like a Professor*, *They Say / I Say*, and *101 Essays That Will Change the Way You Think*, students will build the skills to interrogate what authors are doing and why. This course will push students to read like writers, notice the machinery behind a text, and use these tools in their own academic and creative work. A strong emphasis will be placed on writing with clarity, nuance, and purpose to prepare students for the demands of college-level reading and argumentation.

Essential Inquiry Questions

- How do writers create emotional or intellectual effects through style, structure, and tone?
- What strategies do authors use to guide—or even manipulate—readers’ thinking?
- How can we distinguish between what a text says and what it does?
- In what ways can close reading sharpen our writing and our awareness of bias, power, and voice in public discourse?

Students will be challenged to:

- Analyse authorial intent in both literary and non-fiction forms
- Critically evaluate rhetorical strategies in everything from short stories to scientific essays
- Produce sophisticated analytical and personal essays that demonstrate intentional use of rhetorical moves
- Engage in metacognitive reflection about their own reading and writing practices

This is a course for students ready to read with attention, write with purpose, and think with rigour.

History

US History (1 credit)

Frederick Douglass, a self-educated man who escaped slavery from the U.S. South, once stated that, “the life of the nation is secure only while the nation is honest, truthful, and virtuous.” In the course, students will explore, examine, analyze, and critique moments in the country’s past by

engaging with primary and secondary sources. Students will gain knowledge and understanding of historical events, people, places, and movements that have shaped the society they live in today. Additionally, students will be introduced to various experiences of people in the United States that will question the idea of U.S. exceptionalism. With exposure to diverse perspectives, a major goal of the course is for students to absorb a more honest, truthful, and comprehensive view of the “American” experience to encourage more virtuous thinking and actions.

Government and Politics (1 credit)

Founding Father, Thomas Jefferson, once wrote, “[t]he purpose of government is to enable the people of a nation to live in safety and happiness. Government exists for the interests of the governed, not for the governors.” Throughout the school year, students will learn about moments in history—and the present—when the government has “succeeded” and fallen short in keeping all of its citizens happy. Through examination of case studies developed by Harvard’s Case Method Institute—beginning with the “Federal Negative” in the 1780s through the “Citizens United” court case in 2010—the course explores how the U.S. government, its politics, and democracy have evolved over time. Modern-day political and economic debates in U.S. society will be examined and analyzed in class as a way of informing students and allowing them to critically think about current issues. Furthermore, there will be a concerted effort to demonstrate moments when marginalized groups (racial minorities, women, members of the LGBTQ community, etc.) felt the need to take action to ensure their full rights as U.S. citizens were respected.

World History (1 credit)

As the world becomes increasingly diverse there needs to be a more concerted effort to understand the emergence, development, and persistence of different cultures, peoples, and their experiences. This course is designed to provide students with the historical context for understanding the connections between people from different regions in the world through shared experiences across time and space. The course will follow a general chronology of societal developments throughout the world that includes examination of topics and themes like: indigenous societies, colonization, resistance, independence, and nation building. Emphasis will be placed on understudied regions of the world that include Latin America, Asia, Africa, and the Middle East. By becoming familiar with and knowledgeable about the shared experiences of people across the globe, students will also familiarize themselves with the singularities and particularities that make the history of different regions unique to their place in the world.

Ethnic Studies (1 credit)

This course asks students to think about how U.S. history is taught and whose stories are included—or left out. Many history books focus on a Eurocentric view, often ignoring the important roles of Native Americans, Black Americans, Latina/o Americans, and Asian Americans. Instead of accepting the idea of the U.S. as a “melting pot,” students will explore how race, class, and power have shaped the country. Using materials from history, sociology, and other subjects, the class will look at how unfair systems like racism and classism still affect people today. Students will learn to see U.S. history in a more complete and fair way.

Mathematics

Geometry (1 credit)

Prerequisites: Algebra 1 or placement exam

This geometry course serves two purposes. First, students are introduced to the beauty of Euclidean geometry, learning the fundamentals of points, lines, 2D shapes, 3D objects, and how they all are related. Second, and just as important, students develop critical mathematical practices, including reasoning abstractly, modeling real-world situations, attending to precision, and developing detailed proofs. For many students, this is the first time they have rigorously constructed a proof. Understanding how the body of knowledge in math can be derived from a few fundamental axioms is one of the joys of this course.

Algebra 2 (1 credit)

Prerequisites: Algebra I and placement exam

The purpose of this Algebra 2 course is to extend students' understanding of functions and the real number system while expanding their toolkit for modeling real-world phenomena. Students broaden their concept of number to include complex numbers and explore how this extension enables solutions to polynomial equations via the Fundamental Theorem of Algebra. They deepen their understanding of functions and apply equation-solving strategies across a wide range of function types. The system of polynomial functions, analogous to the integers, is extended to rational functions, which mirror the properties of rational numbers. Students also examine the relationship between exponential and logarithmic functions as inverses. Trigonometric functions are expanded to include all real numbers, with emphasis on their graphs and key properties. Algebra 2 is divided into four major modules: Polynomial, Rational, and Radical Relationships; Trigonometry; Exponential and Logarithmic Functions; and Real-world Modeling. Upon successful completion of this course, students should be able to demonstrate quantitative reasoning, build logical arguments, apply critical thinking skills, model with mathematics, and determine which tools to use, how to use them, and when to apply them.

Precalculus (1 credit)

Prerequisites: Algebra II, Geometry, and placement exam

Precalculus is a rigorous and conceptually rich course designed to prepare students for Calculus and other college-level mathematics and science courses. Blending advanced topics from algebra, geometry, and trigonometry, the course emphasizes deep conceptual understanding, strategic problem-solving, and mathematical modeling. Throughout the year, students explore a wide range of topics essential for higher mathematics, including composite and inverse functions, trigonometric identities and applications, complex numbers, vectors and matrices, rational functions, conic sections, series, probability, and combinatorics. Students develop fluency with mathematical tools and techniques, learning not just how to solve problems, but how to choose

appropriate strategies and justify their reasoning. This course is highly recommended for students planning to take AP Calculus or pursue science, technology, engineering, or mathematics in college.

Calculus 1 (1 credit)

Prerequisites: Precalculus and placement exam

In this course, you'll explore the foundational tools of calculus — limits, continuity, derivatives, and an introduction to integration — all while applying them to real-world challenges. From modeling motion to optimizing systems, you'll see how calculus powers fields like engineering, economics, medicine, and environmental science. By the end of the term, you'll produce a project that not only demonstrates your understanding but can be shared with a wider audience through our public exhibition.

Calculus 2 (1 credit)

Prerequisites: Calculus 1 and placement exam

Calculus 2 is both a continuation and an expansion — a course where you'll not only solidify your understanding of integration and differential equations, but also take your first steps into the world of multivariable calculus. We'll explore vector-valued functions, infinite series, partial derivatives, and more — all with a commitment to real-world applications and deep mathematical thinking. This course offers you tools to model complexity, describe change, and approximate the seemingly infinite.

Statistics (1 credit)

Prerequisites: Algebra II

In this course, you will learn how to make sense of data, ask powerful questions, and draw meaningful conclusions using the language and tools of statistics. From scientific research to social issues, sports to medicine, statistics helps us interpret the world — and this course will help you become a more confident, informed thinker. Through hands-on projects, simulations, and real datasets, you'll practice designing investigations, analyzing data, and presenting your findings to an audience. Our emphasis is on clear reasoning, critical thinking, and effective communication, with opportunities to display your work publicly.

Multivariable Calculus (1 credit)

Prerequisite: Calculus

This course invites you into a collaborative, student-led exploration of multivariable calculus — where you'll navigate the math of 3D space, changing surfaces, and complex systems alongside your peers. You won't just be learning new concepts — you'll also be teaching them. Every student in this course takes turns guiding discussions, designing problem sets, and explaining big ideas. Together, we'll explore partial derivatives, gradients, vector calculus, and multivariable integrals — and we'll work to understand why they matter through real-world examples, creative applications, and peer-driven projects. Expect deep thinking, leadership, and lots of sketching in 3D.

Linear Algebra (1 credit)**Prerequisite:** Precalculus

This course provides a rigorous introduction to Linear Algebra, a branch of mathematics centered on the study of vectors, vector spaces, and linear transformations. Students will develop a deep understanding of systems of linear equations and learn to solve them using various methods, including matrix operations and row reduction techniques. The course explores the algebra and geometry of matrices, determinants, and vector spaces, laying the groundwork for further study in mathematics, science, and engineering. By the end of the course, students will be proficient in constructing and analyzing mathematical models using linear algebraic methods, and will be well-prepared for higher-level coursework in mathematics, data science, and applied sciences.

Data Science (1 credit)**Prerequisite:** Algebra II

In this course, you will dive into the powerful world of data science — where code meets curiosity and math drives decision-making. Whether you're cleaning messy datasets, finding the most efficient solution to a problem, or training a model to make predictions, you'll learn how to use data as a tool for insight, storytelling, and impact. This course is divided into three parts: Programming in R, Optimization, and Machine Learning. Your journey will be hands-on and project-driven, with a strong emphasis on creativity, clarity, and ethical data practices. You'll leave this course with the ability to not just use data — but to think with it.

Science

General Biology: BIO 10 (1 credit)***Prerequisite:** concurrent enrollment in Algebra I or higher

This is a college-level general biology course that covers methods of science and basic principles of biology with special emphasis on genetics, ecology, overpopulation, nutrition and disease prevention. Students learn to explain the concept of evolution and the mechanism of natural selection, the scientific method and demonstrate an ability to use this method of study, and recognize the role of human activities in environmental problems and solutions.

*Dual Enrollment with Foothill College

Fundamentals of Chemistry: CHEM 25 (1 credit)***Prerequisite:** enrollment in Algebra II or higher

The course includes basic chemical laboratory techniques and methods, a survey of important chemical principles with emphasis on problem solving, and a description of the elements and their compounds. Students learn: to recognize basic patterns of chemical reactivity, express reactions in terms of balanced equations and be able to determine quantities of reactants and products in terms of moles, mass and volumes of solutions; identify physical and chemical

properties and change; use dimensional analysis to set up and solve numerical problems; and understand the meaning and uses of the mole and of Avogadro's number.

*Dual Enrollment at Foothill College

General Physics: Mechanics: PHYS 2A (1 credit)*

Prerequisite: Algebra II

Intended for students seeking to fulfill general education requirements in the physical sciences, Physics 2A offers a comprehensive introduction to classical mechanics and the properties of matter. Students will explore the fundamental principles governing motion and forces, including topics such as kinematics, Newton's laws, energy conservation, momentum and collisions, rotational dynamics, harmonic motion, and gravity. Through problem-solving, lab experiments, and conceptual analysis, students will deepen their understanding of how physical laws explain real-world phenomena, from falling objects to planetary motion. No prior physics background is required, though a strong foundation in algebra and trigonometry is recommended.

*Dual Enrollment at Foothill College

General Physics: Electricity and Magnetism: PHYS 2B (1 credit)*

Prerequisite: Physics 2A and Algebra II

Intended for students fulfilling general education requirements in the physical sciences, Physics 2B introduces key concepts in thermal physics, electricity, and magnetism. Students will investigate topics such as heat and thermodynamics, electrostatics, electric fields and potentials, DC circuits, magnetism, and electromagnetic forces. The course also includes an introduction to fluid dynamics and its connection to physical systems. Emphasis is placed on conceptual understanding, mathematical problem-solving, and real-world applications. Through hands-on labs and collaborative activities, students will gain a deeper appreciation of the physical principles that govern energy, charge, and motion in everyday life. A solid foundation in algebra and trigonometry is recommended.

*Dual Enrollment at Foothill College

(New!) Calculus-Based Physics (1 credit)

Prerequisites: Precalculus

Co-requisites: Calculus

This hands-on, calculus-based physics course explores the foundational principles that govern motion, forces, energy, momentum, and rotation. Students will apply differential and integral calculus to analyze real-world systems, design experiments, and model physical phenomena. With an emphasis on mechanics, this course develops the analytical and problem-solving skills essential for success in rigorous, college-level physics studies.

World Languages

Spanish 1 & 2 (SUMMER) (2 credits)

Prerequisites: None

This summer course is offered as a “get ready for Spanish 3” intensive course that grants credit for both Spanish 1 and Spanish 2 over the course of an immersive 5-week summer class.

Spanish 3 (1 credit)

Prerequisites: Spanish 2 or placement exam

Spanish 3 assumes mastery of previously learned vocabulary and grammar structures. This course is designed to strengthen students’ grammatical foundation while introducing more advanced structures such as commands (imperative) and the subjunctive mood. Students will continue to develop their interpersonal, interpretive, and presentational communication skills in Spanish, engaging with the language in authentic and meaningful ways. Instruction is conducted 90–100% in Spanish to immerse students in the linguistic and cultural context of the Spanish-speaking world.

A new component of this course includes experimenting with AI-powered language tools to enhance vocabulary retention, pronunciation, writing skills, and cultural exploration. These tools will support students in personalizing their learning experience and becoming more autonomous, reflective language learners.

Spanish 4 (1 credit)

Prerequisites: Spanish 3 or placement exam

Spanish 4 is designed for students who have demonstrated solid mastery of vocabulary and grammar from previous levels. This course deepens that foundation through the introduction of more advanced grammar concepts while expanding students’ confidence in spontaneous and purposeful communication. Instruction is conducted 90–100% in Spanish, and authentic materials—including articles, documentaries, films, and music—form the core of class content.

In this course, students will also explore AI-based tools to enhance language learning through interactive writing feedback, pronunciation refinement, cultural exploration, and content generation. These tools empower students to personalize their language journey, explore new learning strategies, and develop greater autonomy.

Advanced Cultural Studies in Spanish (AC Spanish) (1 credit)

Prerequisites: Spanish 4 or placement exam or teacher approval

AC Spanish is a full-immersion, college-level course designed for students prepared to engage deeply with Spanish-language literature and develop their own voice as creative writers. Spanning texts from the 16th to the 21st century, the course introduces students to a wide array of genres, including poetry, short stories, novels, drama, and essays. Students will analyze texts through close reading, discussion, and reflection, while also exploring how these works resonate with their own lived experiences.

This course also functions as a creative writing workshop: students will study the craft of celebrated authors, experiment with literary styles, and write original compositions in Spanish. Peer review, constructive critique, and revision are central components of the course. Class is conducted entirely in Spanish and structured as both a seminar and a workshop, prioritizing student voice, dialogue, and collaboration.

Note: Each academic year centers on a literary theme, which informs the readings, discussions, and writing projects throughout the term.

Fall 2025 Theme: Mystery, Drama, and Magical Realism in the Latin American Short Story

Visual and Performing Arts

Advanced Topics: Art Portfolio (1 credit)

Prerequisites: Foundational Art or portfolio review

This year-long advanced art course is designed for passionate, dedicated, and experienced artists. This course focuses on refining artistic skills and building a comprehensive portfolio for college applications and/or professional pursuits. Students will practice advanced techniques in various mediums, experiment with unique concepts, and receive personalized guidance to elevate their artistic vision. Through challenging projects and critiques, students will develop a refined body of work that showcases their artistic growth and individual style. This course will help students create a compelling portfolio comprised of previous and new works that stands out and opens doors to future opportunities in the art and design world.

Foundational Art & Design A & B (0.5 credits each)

Students will develop their art and design skills by exploring key art concepts: line, shape, color, value, contour, self-portrait, form and artist studies. Projects will be scaled to students' abilities with the goal of mastering the fundamentals of art and design. Students will practice Design Thinking techniques to learn visual hierarchy, composition, proportion, balance/alignment, texture, and repetition for fine art and digital design projects infused with cultural contexts. This is a core/foundational high school level art class. All work will be completed in the studio.

Note: Foundational Art A and B may be taken in separate semesters, as they are distinct elective classes, each worth 0.5 credits.

Electives

Elective classes either occur during elective slot A or B. Elective slot A is from 3-4pm on M/W/Th/F. Elective slot B is from 1:30-4 on Monday, and 11-12 on Wednesday. Elective slot B is compatible with a Foothill dual enrollment class in the same semester.

Theater (Slot A, 0.5 credits)

In this theater elective, students will work together to stage a full production of *She Kills Monsters*, a dramatic comedy set in the world of Dungeons & Dragons. Students may participate as performers—developing acting skills, voice, and movement—or as members of the tech crew, designing and building sets, props, costumes, and lighting. Whether on stage or behind the scenes, all students will collaborate to bring the show to life for a live audience.

Teaching Innovation Lab (Slot A, 0.5 credits)

In this course, you will come to better understand what it means to teach - and learn. It is a combination of a personal journey and metacognitive analysis of your surroundings. We'll be covering topics such as project-based learning, experiential learning, course design, equitable practices in education, and classroom management. We will pull readings from educational research journals as well as more modern educational approaches, and you will write several posts for our teaching and learning blog throughout the year. In the end, you will design your own course from scratch.

An Exploration of Architectural Eras (Slot A, 0.5 credits)

This course takes students on a journey through time, exploring the rich tapestry of architectural history from early human settlements to the present day. We'll delve into the various architectural styles, materials, and techniques that have been used throughout history, and how they reflect the cultures and societies that created them. From the grand pyramids of Egypt to the sleek skyscrapers of the modern era, we'll examine how architecture has evolved and continues to shape our world. This course may include quizzes and written assignments.

Robotics and Prototyping (Slot A, 0.5 credits)

In this hands-on elective, you'll get an introduction to the tools, machines, and materials used in real-world robotics and physical prototyping. Whether you're curious about joining the robotics team or just want to build and tinker, this course will give you the foundation to design, fabricate, and iterate like an engineer. From 3D printers and hand tools to CAD and power tools, you'll build up both confidence and skills through weekly challenges, collaborative builds, and open-ended design projects.

Marketing and Communications Lab (Slot A, 0.5 credits)

You are part of a small, creative, and powerful team at Khan Lab School. We work like a real marketing agency to tell the story of our school—through videos, print pieces, design, and messaging. Our work supports enrollment, strengthens community, and lifts up the voices of students and faculty. This team is trusted to represent KLS to the outside world. That's a big responsibility—and also a big opportunity. In this class, you will design your own marketing projects using KLS as the client. The course includes a series of marketing workshops and agency meetings to keep everyone on track. In the end, you'll create a powerful portfolio of

assets and/or a marketing campaign that leverages your skills and your unique perspective as a student.

Historical Research (Slot A, 0.5 credits)

In this course, students will step into the role of historian, learning the tools and techniques used by professionals to ask compelling questions, evaluate evidence, and construct meaningful interpretations of the past. Through deep engagement with primary sources, scholarly research, and historiographical debates, students will design and carry out an original research project on a historical topic of their choosing. Along the way, they will explore how history is constructed, whose stories are told, and how narratives about the past shape our present and future. The course emphasizes critical thinking, research fluency, and intellectual independence, preparing students to contribute thoughtfully to ongoing dialogues about history and its relevance.

Creative Writing (Slot A, 0.5 credits)

"Creative Writing" is a workshop-style elective for students who are serious about writing and have a project they're dying to write but haven't yet found the time. This course centers on consistent writing, peer feedback, and creative exploration. Students will pursue a self-directed writing project in the genre of their choice—fiction or nonfiction—and must submit a proposal before enrollment. Along the way, we'll gather insight from a variety of authors, including Aristotle, Lynda Barry, Ray Bradbury, Julia Cameron, John Gardner, Stephen King, Anne Lamott, Ursula K. Le Guin, John McPhee, Steven Pressfield, Brandon Sanderson, and many more.

Storymapping (Slot A, 0.5 credits)

In this elective, students use GIS software to create interactive maps that tell powerful stories. Blending geography, data, and narrative, they'll explore storymapping techniques while choosing topics that matter to them. The course emphasizes research, design, and digital storytelling as students bring places and their histories to life through maps.

Filmmaking (Student-Led) (Slot A, Credit/No Credit)

In this elective course, students will explore the creative and technical aspects of visual storytelling through digital media. Emphasis will be placed on developing skills in video editing, narrative construction, and collaborative production. Through a mix of hands-on practice, media analysis, and peer collaboration, students will gain experience with professional editing tools while engaging in reflective conversations about how stories are shaped through film. Throughout the term, students will have opportunities to work independently and in groups to design and produce original video projects that showcase their unique voices and perspectives. This course encourages experimentation, creativity, and critical thinking as students contribute meaningfully to a shared media environment.

(Meta)Physics (Student-Led) (Slot A, Credit/No Credit)

In this elective course, you will explore the connection between the physical and the metaphysical through a class that is part physics and part philosophy. You will explore

philosophical questions in the school of metaphysics, including whether objective reality exists and how the world came to be, and discuss how theoretical physics can help us understand these problems. We will dive into the world of quantum mechanics, exploring current research and evolving theories to create a clearer understanding of the universe.

Pathways to Mastery

At Khan Lab School, our students flourish as they are empowered to navigate their own paths, guided by our deeply committed and experienced faculty. Beyond developing as a learner, students work closely with their peers, and when appropriate, across age and grade levels. This collaboration extends both in and out of the classroom through our mastery-inspired curriculum.

We also recognize that students seek personalized learning opportunities. We have designed multiple paths to mastery in order to provide the kind of flexibility often not available in small schools, so that our students can seize every opportunity to demonstrate mastery and embrace learning.

External Courses (variable credits)

Students sometimes engage with external programs as an enrichment to their learning experience at KLS. In some cases, those external programs walk students through a curriculum that is equivalent to a year-long course at a typical high school. In those cases, we want to provide credit for that work so that students can proceed to the next level of coursework, if appropriate.

Some programs provide their own transcripts (e.g. Language Bird), in which case that transcript is simply attached to ours and referenced in the course list. In other cases (e.g. Russian School of Math), no transcript is provided, but KLS can use the portfolio of work generated in the program in addition to a demonstration of Mastery to grant credit for that work on the KLS transcript.

Independent Study - Math (1 credit)

Students complete Khan Academy courses unit-by-unit at their own pace. These are online courses, where students are working through the material without a teacher facilitating (though they do have access to Khanmigo as a virtual tutor and Schoolhouse.World for peer tutoring). At the end of each unit, they should complete the unit test and verify using Schoolhouse.World. To complete the course, they need to score 80% or above on the unit tests. In addition, they also need to take an in-person proctored assessment with one of our math teachers.

If students complete all required elements for the demonstration of mastery, they will get a KLS credit for the equivalent course. Depending on their performance on the unit

tests and final proctored assessment, they may receive Foundational Mastery or Mastery. It is not possible to achieve Mastery with Distinction in an Independent Study course.

Independent Study - Other (variable credits)

Students can propose an Independent Study course in an area of their choosing. They must submit a proposal form that indicates how they will assemble a portfolio of rigorous work, and what they intend to use as a final demonstration of mastery. They should also indicate how many credits they believe this work will be worth. Students will identify a faculty sponsor for this work (either internal or external to KLS) who will verify the completion of the portfolio of work, and sign off on the proposal.

It is not possible to achieve Mastery with Distinction on an Independent Study course - the student will either achieve Mastery or not.

Community Engagement Program (variable credits)

Students who take advantage of opportunities outside of school, such as a job, internship, community service, or other independent project, and who want to receive academic credit for that work, can apply for a Community Engagement Program credit. They need to assemble a “thesis committee” made up of one collaborator from outside KLS (e.g. their boss at their job) and two members of the KLS staff. They should do this before they begin the program. Over the course of their time in the program (which is completely self-paced), students will assemble a portfolio of work. When they believe they have done enough work to justify a credit, they should schedule a “thesis” style defense, during which they will give a ~20 minute presentation. The committee will then meet to decide if the work is ready for credit, or if the student needs to do something more. Students must define the scope of their work in their proposal form.

If approved by their thesis committee, the student will receive a mastery credit on their KLS Transcript for “CEP: [insert project name]”.

Example Pathways Courses:

Pathway	Example	Transcript Designation
External Course	Student completed Geometry through the Russian School of Math, which does not provide an official transcript. They were able to submit a portfolio of work completed, along with a certification from Russian School of Math which indicated the completion of a year-long equivalent of Geometry. In addition, the student took a placement test through KLS, and placed into the next course in the math sequence.	Geometry

Independent Study - Math	Student completed Precalculus asynchronously through Khan Academy. They completed each unit test and scored between 80-100% on each through Schoolhouse.World. In addition, they took an in-person proctored assessment through KLS and scored an 80%.	Precalculus
Independent Study - Other	Student designed a Songwriting class for themselves where they worked with the KLS music teacher to develop a portfolio of songs, over the course of the first term. They then learned music production skills in Term 2 in order to create an EP of the songs they had written and composed. Finally, in Term 3, they organized a live performance of their song at a KLS concert. The music teacher signed off each term on the work the student did.	Independent Study: Music Production and Songwriting
Independent Study - Other	Student worked with an external tutor to study for the AP Environmental Science exam. Week by week, the tutor signed off on a portfolio of work, including practice problems and short answer questions from College Board which were reviewed and assessed. Finally, the student scored a 4 on the AP exam in May.	Independent Study: Environmental Science
Community Engagement Program	Student completed a research project with a group at Stanford throughout the year. Upon completion of the project, the student assembled their thesis committee, which included two KLS teachers and two of the researchers from Stanford. They presented a 20 minute presentation in which they described the work they did, what their role on the team was, and what the impact of the project was on the research team. They also answered questions from their committee about their work. Finally, the committee deliberated, with the researchers giving the KLS teachers context on the project, and the KLS teachers explaining our mastery system and how much work is typically worth a full credit at KLS. The committee approved the work.	Community Engagement Program: Data Science and Citizen Science in Medicine

For more information about the Pathways to Mastery Program, please email the Upper School Director at laura@khanlabschool.org.

Applied Learning Program

We believe learning does not stop at the classroom door. KLS supports students' exploration of their passions and their ability to further develop skills and apply learning within contexts meaningful to them. In our Applied Learning Program, students engage in structured year-long projects they design and carry out individually or in small groups. Faculty and staff support students in learning how to manage long-term projects, collaborate effectively, and make a meaningful impact on their community.

Stepping Stones: Making Impact on a Local and Global Scale

The Stepping Stones program applies to 9th grade students. As they progress along the Stepping Stones sequence, they transition from endeavors influencing our campus to those affecting our local community, and finally to projects with the potential for global impact. In this way, students practice the design thinking cycle in ever-widening circles of community.

Stepping Stones projects are mandatory for students in 9th grade, and therefore do not appear on the high school transcript.

Cornerstones: Finding Your Purpose

Students in 10th and 11th grade use the skills they built in the Stepping Stones program to design their own project. Students pursuing a Cornerstone must submit a proposal to the Upper School Director.

Cornerstone projects are optional, and therefore appear on the transcript as an "Academic Distinction" (not for credit) - and must be completed independently.

Capstone: Skills for Future Endeavors

As 12th graders, students are required to take a senior Capstone class, in which they work with a supervisor to develop an individual, impactful project that makes use of the learning they have done while at KLS, as well as the skills they've learned in the Applied Learning Program.

The senior Capstone is a required course, and is assessed for credit on the transcript.

Foothill College Appendix

Required forms

You will need to fill out a MOU/CCAP form (found in Foothill's [MyPortal](#)) before you can enroll in any classes. This is important! Make sure you do this by the deadline listed below (preferably before).

Fall Registration Window: Aug. 4–Sept. 21

Winter Registration Window: Nov. 24–Jan. 4

Spring Registration Window: March 3–April 5

SPECIAL ADMIT & HIGH SCHOOL STUDENT DUAL ENROLLMENT FORM

An approved Special Admit & High School Student Dual Enrollment Form must be submitted each quarter with an unofficial high school transcript and is valid for the requested quarter only. For students enrolled in home school, a copy of a current Private School Affidavit must also be attached. High school unofficial transcripts must be included in order for the Admissions and Records Office to review this form. Submission of this form does not register a student nor guarantee a seat will be available in courses requested at the time of registration. Classes listed in High School CANNOT be repeated at Foothill College for high school credit. Students must also meet course prerequisite requirements as indicated in the [class schedule](#). Students may not enroll in more than 15 units each quarter (6 units in Summer), and may not take ESL, Basic Skills, remedial or 100 level or above (non-degree applicable) courses. College P/E activity classes have an enrollment limit of 10% that may be high school students.

Student's Name: [Redacted] Student's Address: [Redacted] Student's Phone: [Redacted] Foothill College Title (see History of the US in 1876): [Redacted]

Date of Birth: MM/DD/YYYY Home Phone: [Redacted] Email Address: [Redacted] Type of School: ☐ Public School ☒ Private School ☐ Home School

High School Name: Khan Lab School High School Phone: [Redacted]

Course #	Foothill College Course Name and Number (ex: HIST 101/ANCRMF12145)	Foothill College Course Title (see History of the US in 1876)	Quarter	Year
Course #1	[Redacted]	[Redacted]	[Redacted]	[Redacted]
Course #2	[Redacted]	[Redacted]	(select an opti	[Redacted]
Course #3	[Redacted]	[Redacted]	(select an opti	[Redacted]
Course #4	[Redacted]	[Redacted]	(select an opti	[Redacted]
Course #5	[Redacted]	[Redacted]	(select an opti	[Redacted]

PARENTAL/GUARDIAN APPROVAL:

- Credit courses are COLLEGE courses and will remain on the student's permanent record even if the secondary school uses the coursework as high school credit.
- All prerequisite courses with an integral assessment testing must be completed prior to enrollment.
- Understand that there will be no supervisor provided for students prior to or after classes.
- Understand that the coursework has college-level content, which may include mature material.
- Understand that my student must follow all Foothill college policies and procedures.
- Understand that my student must be in 10th, 11th, or 12th grade at time of enrollment.
- My student has permission to enroll in the above listed courses at Foothill College.
- Understand that my Family Educational Rights and Privacy Act (FERPA) governs all college records and allows release of academic information, including grades, to the student only, regardless of age. Academic information cannot be released to parents or third parties without the written consent of the student.

Signature: [Redacted] Date: [Redacted]

Parent/Guardian Signature: [Redacted] Email: [Redacted]

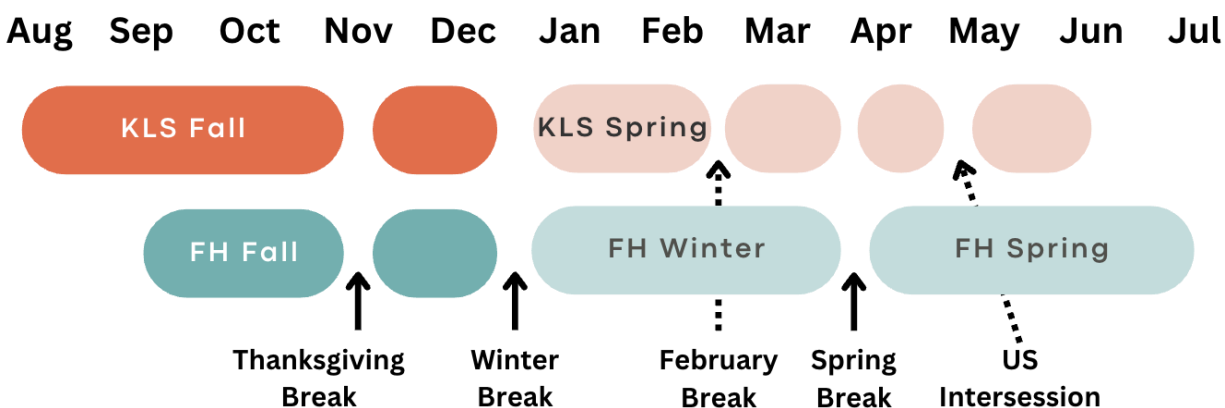
HIGH SCHOOL PRINCIPAL/ADMINISTRATOR APPROVAL:

- The student listed is a Freshman, Sophomore, Junior or Senior and is a regularly enrolled student at our school and has permission to take the above coursework at Foothill College.
- The course(s) listed above are not offered at our high school.
- The student is able to benefit from advanced academic or vocational work at Foothill College.
- For Summer Session only: The student has demonstrated adequate preparation in the disciplines to be studied and has evaluated himself/herself as an opportunity to enroll in an equivalent course at our school.
- Enrollment of this student is within the 5% statutory limit as defined by section 76001 (i) of the California Education Code.

Principal/Administrator (Please Print): [Redacted] Date: [Redacted]

Foothill Schedule

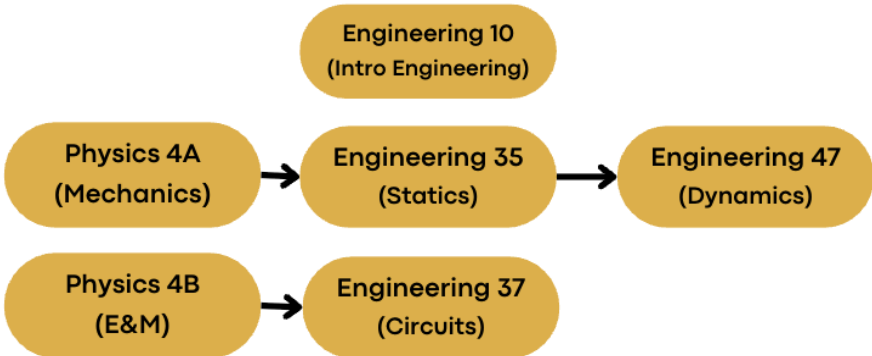
Foothill breaks its year up into quarters, rather than semesters (the summer being the fourth quarter). During our school year, the Foothill quarters line up with the KLS semesters as follows. Note that the Foothill Spring semester bleeds over into the KLS summer. Please take that into consideration when signing up for a Spring class, and make sure that your summer travel plans do not interfere.



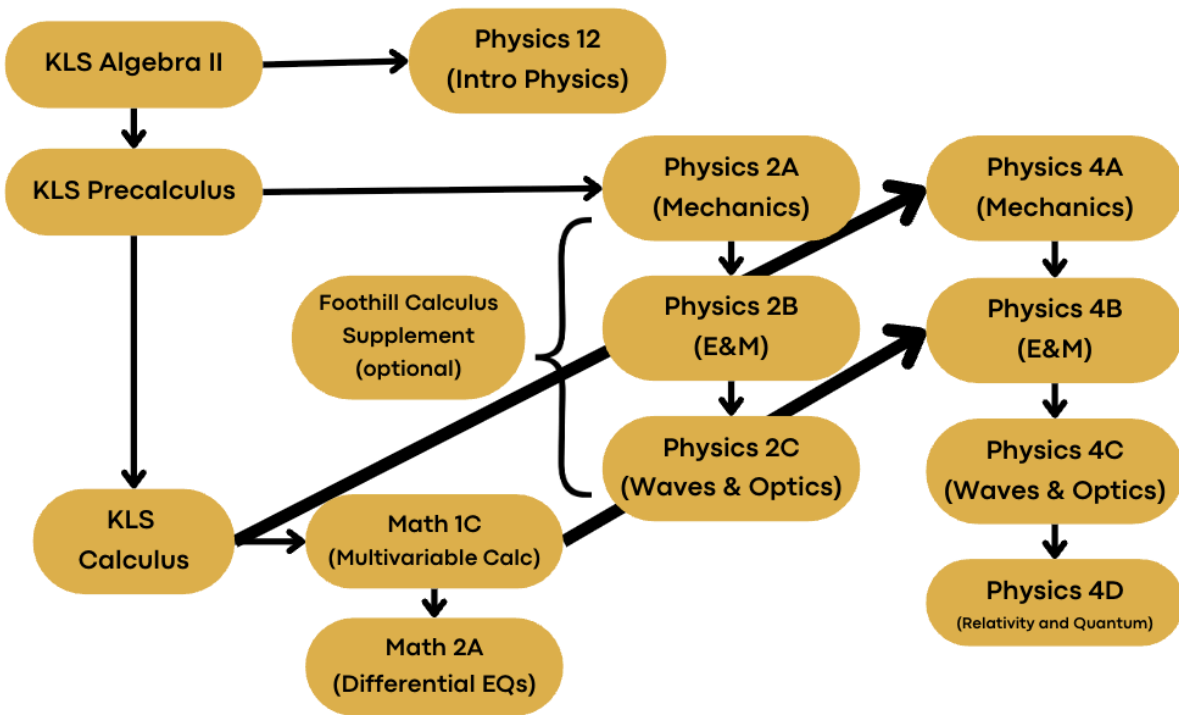
Course Sequencing and Prerequisites

As you seek upper level college courses, you may find that there are a complicated series of prerequisite and interdependencies. The sequencing diagrams below aim to help you navigate your path. For more information, please contact the Upper School Director or College Counselor.

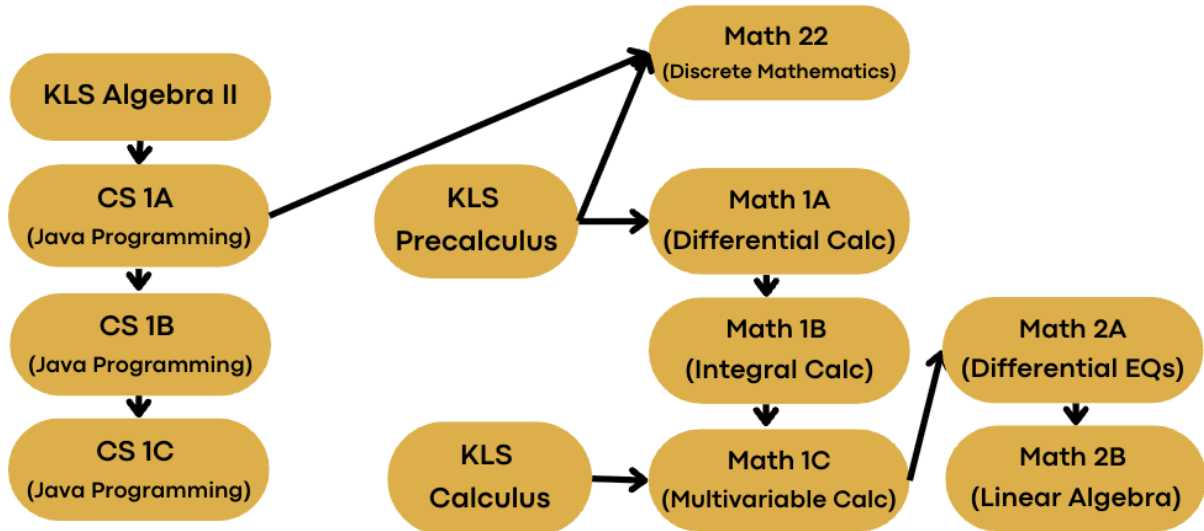
Engineering Course Sequencing



Physics Course Sequencing



Math and Computer Science Course Sequencing



Biology and Chemistry Course Sequencing

