

LA LUMIERE SCHOOL
Character • Scholarship • Faith



COURSE CATALOGUE

2022-2023

At La Lumiere School, we **form character, cultivate scholarship,** and **explore faith** in order to grow into more complete versions of ourselves.

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Dear Students,

Springtime has arrived at La Lumiere, and it is time for us to look ahead and consider your coursework in the next phase of your academic career. In the pages of this course catalogue, you will find descriptions of the courses that we plan to offer in the 2022-2023 academic year. This catalogue also includes an overview of our graduation requirements and the mission of each academic department.

Take the time to read through this catalogue as you think about your selections. Making choices about your coursework for the coming school year means reflecting on where you want to grow as a scholar and as a person. And that's an important task. At La Lumiere, your academic coursework is just one dimension of your experience, but it is an important one. In addition to considering your graduation requirements, take the time to consider the types of questions you will ask next year, the variety of things that you will pay attention to, and the conversations that you hope to have with teachers, classmates, and friends. Where do you want to be challenged? Where do you want to grow? What habits of mind do you want to develop?

Each year we have the opportunity to think anew about the direction of our studies, about our teaching and our learning, and we have the chance to shine the light of our attention in new directions with a sense of curiosity and wonder. We never stop growing as scholars together. We are excited for the next year of discussions, lab work, essays, and discoveries as we cultivate scholarship together at La Lumiere.

Gratefully,



Dr. Hoyt
Academic Dean





We believe that the arts have intrinsic human value. Our program offers an emphasis on creativity and is accessible to students at all levels. We prioritize an interdisciplinary approach to the arts, forging connections between the arts and other subjects.

Graduation Requirements

- 1 credit of Creative Arts

COURSES

Studio Art 0.5 credit

Prerequisites: None

Studio Art is a course designed to examine the building blocks of the artistic process. The course provides an opportunity for students to learn introductory skill sets in order to apply multimedia and interdisciplinary approaches to the principles and elements of art.

Speech 0.5 credit

Prerequisites: None

Students will practice the basic principles and techniques of effective oral communication in this elective Course. Students will adapt to different audiences and purposes. For example, if you are telling a funny story to a group of friends versus telling the same story as part of a college interview: How would you change your style, delivery, and content? Assessments will focus on viewpoint, instructional, demonstration, informative, persuasive, and impromptu speeches. No previous public speaking experience required.

Art Lab

1 credit

Prerequisites: None

Art Lab is an in-depth exploration of problem-solving and visual thinking in the art-making process. This project based course is designed to build on the structure established in studio art. Students will continue to develop their art brains by creating their own work and learning the process of making through developing their own studio practice.

Advanced Projects in Art

1 credit

Prerequisites: Department approval

Advanced Projects in Art is a self-directed mentorship for the student wishing to pursue concentrated studies in specific media in order to prepare a portfolio for college. Each student will meet with the instructor individually culminating in a rigorous course of self-driven projects meant to enhance the student's art experience and goals.

Concert Choir

1 credit

Prerequisites: None

Singing is the foundation of all music, whether choral or instrumental, so being a good singer is a stepping stone to being a great musician. Singing is the most personal of all music performance, since our bodies are our musical instruments. Concert Choir is a small group vocal music ensemble which helps students become more confident musicians by building character through music performance. All students at La Lumiere, both beginning and advanced, are invited to be in the Concert Choir. Students will be given opportunities to become active learners in regard to vocal performance technique and concert planning, so that each performance of the Concert Choir is an expression of our individual and collective identity at La Lumiere.

Jazz Band

0.5 credit

Prerequisites: Department Approval

Jazz Band provides students who can play an instrument to expand their performance experience through improvisation. Students will gain a deeper understanding of the contribution of 20th century American Jazz to contemporary music of all genres. Through rhythmic complexity, and through experimentation with chords and scales, students will learn to be creative musicians.

Music Performance Skills I

0.5 credit

Prerequisites: Department approval

This course is for those students interested in Music Theory and how Western music is constructed. This class will explore skills in written theory as well as aural theory. Students will learn about whole and half steps, scales, intervals, and triads. Students will also learn how to write from dictation as well as learn to sight sing rhythms and melodies.

Music Performance Skills II

0.5 credit

Prerequisites: Department approval

Performance Skills II will continue the theory learned in Performance Skills I. Students will learn about seventh chords, basic counterpoint, chord analysis, and an introduction to four part chorale writing. Aural skills will continue to be developed through sight singing and dictation.

AP Music Theory

1 credit

Prerequisites: Music Performance Skills I and II, and Department approval

The ultimate goal of an AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of this goal may be best promoted by integrated approaches to the student's development of: aural skills through listening exercises, sight-singing skills through performance exercises, written skills through written exercises, compositional skills through creative exercises, and analytical skills through analysis of musical scores. We expect all students in the course to take the AP Music Theory exam in May.



English

Our English courses equip students to read critically, write clearly, speak effectively, and create thoughtfully. Students encounter powerful texts, write often both to discover and to present discoveries, and participate in a literary community committed to asking good questions of texts and growing in analytical skills.

Graduation Requirements

- ☐ 4 credits of English

COURSES

Introduction to Literature and Composition

1 credit

Prerequisites: None

In the introductory literature and composition course, students develop and sharpen their reading, writing, listening, speaking, and thinking skills. Throughout the year-long course, students explore a number of classical and contemporary texts, including novels, poems, essays, and plays. The goal of this course is to increase comprehension skills, practice writing skills daily, and read aloud from the texts, as well as the students' own papers. We strive for quality, active writing, and expect to see growth throughout the year.

Literature and Composition

1 credit

Prerequisites: Introduction to Literature and Composition

In this course, students learn what makes a work worth reading, studying, and remembering. Careful attention is paid to developing literary analysis skills, both oral and written, and students also continue to pursue growth in their writing skills. This year-long

focuses on expanding students' literary knowledge by exploring novels, poems, songs, essays and plays from around the world that focus on various topics. Through hands-on projects such as in-class debates, student-led discussions, in-class simulations, along with a variety of writing assessments from blog writing to magazine articles to standard essays, students take ownership of their literature and composition growth and apply their knowledge across different mediums. Literature and Composition is a course designed to enlighten students with rich literature and composition skills they can take with them throughout their career as a student.

Literature Seminar: Contemporary World Literature

0.5 credit

Prerequisites: Literature and Composition

In this course, we will read fiction, drama, and poetry, as well as watch films written and produced by writers and filmmakers living outside the United States and the European Union. We will ask ourselves a series of questions: What does it mean to be a “global citizen?” How has “globalization” impacted writers and writing? What effects do geography, gender, language, politics, ethnicity, and economics have on writers and their works? What themes, characters, and plot lines transcend boundaries drawn by humans, and how are we affected by this multiplicity of voices? By the end of the course, each student will produce some type of creative project that reflects our journey around the world through literature.

Literature Seminar: Hyphenated America

0.5 credit

Prerequisites: Literature and Composition

America is a unique amalgamation of cultures. From Asian-American to African-American, Latino-American to Middle-Eastern-American, the hyphenated peoples of America navigate multiple cultures simultaneously, and this “melting pot” is expressed through television, music, literature, and film. This course will focus on the rich diversity within American literature and cinema, exploring historical background and discussing the intersection of cultures as plumbed in those mediums. Students can expect to read novels by underrepresented authors along with the adapted screenplays to analyze and discuss how characters, themes, and content translate between different forms of written work. The basis of this course is to engage literature and the connections it has to visual media. Students will continue to build on their reading skills by digging deep into texts and making intertextual connections between the literatures of diverse authors.

Literature Seminar: Literary Landscapes

0.5 credit

Prerequisites: Literature and Composition

From the limitless expanses of the open ocean to the claustrophobic confines of a single room, landscapes and settings often become one of the defining features of great literature. Novels and short fiction utilize distinctive settings in order to draw the reader into the story and establish atmosphere. This seminar course will explore different types of literary landscapes and examine how they operate in select works of literature. Students can expect to read a variety of texts and respond through discussion and writing assignments. In this course, students will strengthen their analytical reading

and writing skills by digging into primary texts and uncovering intertextual connections.

Literature Seminar: Shakespeare in Tandem

0.5 credit

Prerequisites: Literature and Composition

Four hundred years after his death, William Shakespeare is still influencing new audiences through his works, which are celebrated for their universality and timeless genius. In fact, Shakespeare's work has been adapted time and time again. Filmmakers, playwrights, and novelists have recognized the connections between Shakespeare and our present lives and have converted his stories into films, plays, and novels. But have they worked? In this course, students will study at least three Shakespeare plays, each in tandem with modernized versions of these plays and discuss and analyze whether the themes and characters in these plays really do work in more modern settings. The course aims to cover a range of comedies, tragedies, and histories.

Literature Seminar: Speculative Fiction

0.5 credit

Prerequisites: Literature and Composition

How can stories about angry robots, astronauts lost in space, technology gone wrong, alien invaders, and post-apocalyptic worlds teach us about our current culture? What can these stories teach us about history? By exploring the worlds and futures created by science fiction writers, this course will analyze how texts within this genre reflect the concerns of the time and place in which they were written, such as race, class, gender, environmental concerns, the role of technology, and the boundaries of science. Students will consider how science fiction texts raise questions of ethical and moral concerns, including what it means to be a human being, and how these texts can be read as metaphors for the world we live in today. We will read novels and short stories by a variety of authors from the 19th to the 21st century. Students will boldly go "out there" to search for and evaluate the unsettling truths that science fiction literature shows us.

Literature Seminar: The Short Story

0.5 credit

Prerequisites: Literature and Composition

This course is a survey of short fiction that explores the history of the short story from its origins to its contemporary incarnations. Students will read selections from "classic" writers such as Hawthorne, Gilman, Poe, Baldwin, Chopin, Wharton, O'Connor, Cheever, Walker, O'Brien, Gallant, Munroe, and Moore. Students will also look at more current examples of short stories such as "flash fiction" and emoji and text-message fictions. Through our reading, students will examine the various craft elements of short fiction that make it a unique literary genre: themes, story lines, and structures the decisions short story writers make as they craft their stories and what makes the short story an appealing genre for writers, readers, and publishers alike. During this course, students will write our own short stories – and at the end of the semester students will create an online journal of our writings.

Literature Seminar: The Theater

0.5 credit

Prerequisites: Literature and Composition

An exploration of dramatic literature written from the earliest moments of human history to now. Dramatic literature – creative written works meant for public performance – along with cave paintings, which are the oldest forms of human artistic expression, and in this course we will examine this tradition. Beginning with the origins of theatre arts in Ancient China and Egypt up through the advent of the “modern dramas” of Ancient Greece through the Middle Ages and subsequent Modern Eras to 2021, students will read a wide sample of plays and musicals. Along the way, students will encounter the tragic and the comedic, the spoken and the sung. Students will also see how theatrical conventions – costuming, acting, set design, even the construction of spaces known as theaters – change across time and cultures. When we reach the 20th and 21st centuries, students will then begin to examine how plays and musicals have become powerful forces for social change, oftentimes exploring issues, topics, subjects, and themes other avenues of artistic expressions avoid or ignore. Over the semester, students will complete a variety of assignments ranging from quizzes, a midterm examination, and literary analysis essays. As this is a theatre course, students will also work on costume and scene design sketches and models as well in-class readings and performances. At semester’s end, students will also be presenting some type of theatrical performance to the La Lumiere Community.

Literature Seminar: Women Writers

0.5 credit

Prerequisites: Literature and Composition

What is women’s literature? What can women’s literature do and for whom? Is this even a meaningful way to categorize literature? This course will introduce students to a range of female authors such as Virginia Woolf, Kate Chopin, and Zora Neale Hurston. Students will read important statements in feminist theory alongside primary texts to provide us with a critical vocabulary for literary analysis. Students will continue to develop the skills for literary study through intensive reading and writing.

Writing Seminar: Fame, Fortune, and Famine

0.5 credit

Prerequisites: Literature and Composition

After the devastating losses incurred during World War I, the United States enjoyed a decade of unprecedented growth and prosperity. However, the “window of opportunity” during the Gilded Age soon closed as the Great Depression paralyzed the world. For nearly another decade, poverty and disillusionment gripped the US; yet, during this unsettled time, some literary classics were written - *The Great Gatsby*, *Their Eyes Were Watching God*, and *The Grapes of Wrath*. What was it about this twenty-year period that ironically proved so “fruitful” for writers? In this course, students endeavor to find out. Students will read a selection of “American” fiction, drama, and poetry - including Harlem Renaissance and Latino/a and Asian Literatures - as well as watch films, listen to radio broadcasts, and view visual art created between 1918 and 1940. By the end of his course, each participant will produce some type of creative project that reflects our journey through the literature created during this tumultuous time.

Writing Seminar: Nature and Technology

0.5 credit

Prerequisites: Literature and Composition

In the Nature and Technology writing seminar, students develop their writing skills while exploring the theme of nature and technology. Students read a variety of texts focused on this theme in order to identify the major concerns and perspectives and compose several types of writing in response to the theme (including expository writing, creative writing, and/or poetry). The goal of this writing seminar is to move beyond mere mechanics and produce writing that is clear, coherent, and creative. Students will improve research skills in order to refine topics and organize what is known about a topic, develop a controlled yet unique style and voice, and use a variety of strategies to adapt writing to various audiences and purposes.

Writing Seminar: Passions and Pastimes

0.5 credit

Prerequisites: Literature and Composition

In the Passions and Pastimes writing seminar, students develop their writing skills while exploring various human passions and pastimes, including sports, the arts, and leisure activities. Students read the work of contemporary writers such as David Foster Wallace and Roger Ebert to identify the conventions and concerns of the genre, and compose several types of writing (expository and creative) in response to the themes uncovered. The goal of the writing seminars is to move beyond mere mechanics and produce writing that is clear, coherent, and creative. Students will review grammar and research methods in preparation for college writing.

Writing Seminar: The Art of Rhetoric

0.5 credit

Prerequisites: Literature and Composition

The Art of Rhetoric will give students the rhetorical skills needed to argue persuasively and to communicate well. Students will study classical rhetorical devices, seeing how those devices resonate in modern prose. Students will read outstanding essays, focusing not only on WHAT is said but HOW. Students will focus on style, rhetorical invention, writing for multiple purposes, and making grammatical choices for meaning rather than mere correctness. Students will learn and apply numerous rhetorical devices to multiple genres (including expository writing, creative writing, and/or poetry.)

Writing Seminar: Writing about Film

0.5 credit

Prerequisites: Literature and Composition | Spring 2022

From movie theaters to living rooms, laptops to cell phones, films have seeped into every corner of our lives. In this writing course, students will take a critical look at films and hone their analytical and critical writing skills. Students will be introduced to different film elements, such as *mise en scène*, narrative, and cinematography, and students will also be trained to see the literary elements in good film. Why is the color “red” representing the protagonist? How does the change of scenery between two scenes reveal the character motivation? Students will gain experience with short and long-form reviews, argumentative and analytical papers, and formal critical essays.

AP English Literature and Composition

1 credit

Prerequisites: Department approval

As indicated by the Advanced Placement designation, this is a rigorous college-level English literature course. Students will explore literature from ancient to modern times, from Western and non-Western authors, from the fiction, drama, and poetry genres. Students will demonstrate mastery of the elements of literature through written and oral analysis of the works studied, including an independent research project. Students will also improve their ability to interact with the ideas of others through class discussion, the study of secondary sources, and written responses. An ongoing study of vocabulary and literary terms will make us more observant readers and more precise writers. We expect all students in the course to take the AP English Literature and Composition exam in May.



Mathematics

The Mathematics Department prides itself in its diversity and experience, and response to the needs of our students. Throughout their time at La Lumiere, students will develop a relationship with math faculty that promotes both self-advocacy and self-reliance. Each course focuses on problem solving and critical thinking and prepares students for any field of study.

Graduation Requirements

- 4 credits of Mathematics, to include Algebra 1, Algebra 2, and Geometry (PreCalculus recommended)
- Students must take a Mathematics class each semester while at La Lumiere

COURSES

Algebra 1

1 credit

Prerequisites: None

This is a first-year course designed to develop and strengthen the essential basic mathematical techniques that will be used extensively in future courses. This course will focus on the development of mathematical problem solving skills. Topics include: equations, inequalities, linear functions, systems, exponents, polynomials, factoring; radicals, and quadratics.

Algebra 2

1 credit

Prerequisites: C- or higher in Algebra 1

Algebra 2 is a second-year algebra course designed to prepare students for higher mathematics classes. Topics covered will include properties of numbers, equations and their graphs, systems of equations, introduction to matrices, polynomials, rational expressions, quadratic equations, conic sections, and logarithmic and exponential equations, including problem solving and applications in all of these areas. This course will focus on developing reasoning and problem solving skills.

Algebra 2 - Honors

1 credit

Prerequisites: B+ or higher in Algebra 1

Algebra 2 Honors is an in-depth second year algebra course designed to prepare students for higher mathematics classes. Topics covered will include; properties of numbers, equations and their graphs, systems of equations, matrices, polynomials, rational expressions, quadratic equations, conic sections, and logarithmic and exponential equations, including problem solving and applications in all of these areas. This course will be fast paced and cover the topics listed above indepth.

Geometry

1 credit

Prerequisites: C- or higher in Algebra 2

Geometry is an examination of the properties of two- and three-dimensional figures, and the application of algebraic reasoning to find lengths and measures. Topics include: points, lines, planes and angles, measurement, constructions using a compass and an iPad, proofs, congruence, similarity, polygons and polyhedron, transformations, perimeter, area, volume, and circles.

Geometry - Honors

1 credit

Prerequisites: B+ or higher in Algebra 2

Honors Geometry is an accelerated examination of the properties of two- and three-dimensional figures, and the application of algebraic reasoning to find lengths and measures. Topics include points, lines, planes, angles, measurement, constructions using a compass and an iPad proofs, congruence and similarity, polygons and polyhedron, transformations, perimeter, area, volume, and circles. This course emphasizes on application and enrichment in order to develop a deeper understanding of topics.

Precalculus

1 credit

Prerequisites: Algebra 2 and Geometry

Precalculus starts the year reviewing skills learned in previous algebra courses and then focuses on more difficult concepts. Topics covered will include trigonometry, functions, equations and their graphs, systems of equations, matrices, polynomials, rational expressions, logarithmic and exponential equations, and sets and sequences, including problem solving and applications in all of these areas. This course will focus on developing reasoning and problem solving skills while providing a foundation for additional mathematical studies.

Precalculus - Honors

1 credit

Prerequisites: B+ or higher in Algebra 2 and Geometry

Precalculus Honors is a fast-paced review of algebra skills, followed by an in-depth study of trigonometry. The class will prepare students for advanced math classes by developing problem-solving skills, solidifying algebra skills, and building resilience. Topics covered include linear and quadratic functions, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, polar coordinates and vectors, conic sections, systems of equations, combinatorics, and applications in all of these areas.

Finite Math

1 credit

Prerequisites: Algebra 2 and Geometry

Finite Math is an introduction to mathematical topics with applications to business, management, and social science. The course starts with a review of sets and numbers, followed by an introduction to data sets, counting arguments (combinations and permutations), and the Binomial Theorem, which sets the foundation for elementary probability theory and some basic statistics. The last topics are financial mathematics.

AP Calculus AB

1 credit

Prerequisites: B+ or higher in Precalculus

AP Calculus AB is equivalent to the first two semesters of a general college Calculus course. The primary topics are differentiation (rates of change, function analysis, optimization, related rates, and other applications) and antidifferentiation (indefinite integrals, initial value problems, definite integrals, area, and volume applications). Students will be expected to complete homework assignments both on paper and electronically, and will have comprehensive, cumulative tests at regular time intervals throughout the year. We expect all students in this course to take the AP Calculus AB exam in May.

AP Calculus BC

1 credit

Prerequisites: AP Calculus AB

AP Calculus BC is equivalent to the first three semesters of a general college Calculus course. It encompasses all subjects from Calculus AB, and expands upon those topics with the inclusion of several others (slope fields, Euler's method for differential approximation, more advanced types of integration including integration by parts and partial fraction integrals, parametric and polar equation calculus, and sequences and series as they relate to representation of a polynomial function). Students will be expected to complete homework assignments both on paper and electronically, and will have comprehensive, cumulative tests at regular time intervals throughout the year. We expect all students in this course to take the AP Calculus BC exam in May.

Statistics

1 credit

Prerequisites: Geometry

This course introduces students to the use of statistical methods in reasoning, problem-solving, and making predictions. Students study techniques of data analysis, including graphical and numerical approaches. They learn principles of probability and

probability distributions in the context of a variety of problems. They also learn how to make decisions and predictions with data through the construction and analysis of confidence intervals, hypothesis tests, and p-values.

AP Statistics

1 credit

Prerequisites: B+ or higher in Precalculus

AP Statistics serves to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students in the course will be exposed to four broad conceptual themes: (1) Exploring data by observing patterns and departures from patterns; (2) Planning a study by deciding what factors to study and how to measure the factors that they want to study; (3) Anticipating patterns by producing models using probability theory and simulations; and (4) Statistical inference in order to confirm models. We expect all students in this course to take the AP Statistics exam in May.

Introduction to Computer Programming

0.5 credit

Prerequisites: Geometry

Introduction to Computer Programming is an examination of the logic, syntax, structure, and construction of computer programs. Students learn how to build interactive, practical programs and games using variables, conditional statements, loops, and methods. The primary focus of study is on the use of the Java programming language in preparation for the Advanced Placement Computer Science A course.

AP Computer Science A

1 credit

Prerequisites: B+ in Introduction to Computer Programming

Advanced Placement Computer Science A is an in-depth analysis of computer science principles and object-oriented program design using the Java language. Students will construct organized, efficient programs; analyze classes, methods, and concepts; and learn to troubleshoot and debug Java methods and classes. We expect all students in the course to take the AP Computer Science exam in May.

Python Programming

1 credit

Prerequisites: AP Computer Science A

This course is an extended guided independent study of computer science principles using the Python programming language for students who have successfully completed the AP Computer Science A course. Students are challenged to construct a variety of Python programs that demonstrate a wide range of applications and principles. Study includes advanced topics and features including animated graphics, recursion, list comprehensions, regular expressions, and lambda operators.



Science

The Science department encourages students to explore their world at every scale, from microscopic to intergalactic. We strive to provide our students with a wide array of valuable educational experiences, providing hands-on laboratory activities whenever practical in order to complement learning through other course activities. We believe that a solid foundation in the natural sciences provides our students with the tools they will need to think critically and evaluate issues logically as they prepare for the future.

Graduation Requirements

- 3 credits of Science
- Biology is required. Chemistry and Physics are strongly recommended.

COURSES

Biology

1 credit

Prerequisites: None

Biology is a course devoted to the study of the characteristics of life and of living things and how they interact with one another. The subject matter deals with how living things are organized, (i.e. how they are put together), how they function (i.e. how life processes happen), the relationships between different organisms and between organisms and their environment (i.e. classification and ecology), and how organisms adapt to changes in their environment. Emphasis in this course is on the development of an understanding of the concepts through lab activities, demonstrations, problem solving activities,

discussions, and other types of activities in order to provide a solid foundation for future work in science.

Physical Sciences

1 credit

Prerequisites: Biology

Physical Science is a year-long introductory course to Chemistry and Physics. Students will acquire skills in measurement and experimental design while exploring topics such as forces and motion, work and energy, the properties of matter, atomic structure, chemical bonding, chemical changes, electricity and magnetism, and waves. Students will develop a quantitative and qualitative understanding of the concepts through investigative laboratory activities, discussion, and problem-solving activities. This course will provide a solid foundation for further courses in science including, but not limited to, Physics and Chemistry.

Chemistry

1 credit

Prerequisites: B+ or higher in Biology

Chemistry is a rigorous introductory course, preparing students for college-level or for the study of Advanced Chemistry at La Lumiere. Students begin with studying atomic structure, bonding and structure of substances, and the Periodic Table. By the end of the first semester, students will be confident in describing chemical changes, writing their own word equations and balanced chemical equations, and calculating theoretical yields using moles. Students will study the nature of acids and bases, qualitative and basic quantitative rates of reaction, enthalpy changes, the gas laws, redox, and dynamic equilibria. This course places emphasis on problem solving and lab experiences in order to prepare a proper foundation for future studies in science.

Advanced Biology

1 credit

Prerequisites: B+ or higher in Chemistry

The goal of Advanced Biology is to prepare students for a science major college biology course and to introduce students to extensively used lab techniques and procedures. In the first semester, students focus on cell biology. In the second semester, students study molecular genetics, cell division, and biotechnology. Over the course of the year, students will become skilled using the compound microscope, pipettes, a spectrophotometer, and gel electrophoresis units. In addition, students will learn how the processes of spectrophotometry, chromatography, gel electrophoresis, bacterial transformations, restriction enzymes, and PCR (polymerase chain reaction) are used as tools in the laboratory.

Environmental Science

1 credit

Prerequisites: Biology

Using the physical campus at La Lumiere as a laboratory as much as possible, this course will seek to identify basic ecological principles including populations, ecosystems, and human impact on the Earth. There will also be elements of field biology such as taxonomic identification, collection, and conservation. Emphasis will be placed on current topics

such as climate change, population, invasive species, National Parks, and species conservation.

Advanced Chemistry

1 credit

Prerequisites: B+ or higher in Chemistry

Advanced Chemistry is a course designed to cover advanced topics that build upon what the students have learned in a first-year general chemistry course. This course begins with a review of material from the first-year topics adding some new information not previously covered. This course then studies the advanced topics of enthalpy and entropy in thermodynamics, chemical kinetics, chemical equilibrium and buffers, electrochemistry and finishes the year off with some basic organic chemistry. The course places emphasis on developing competence in problem solving skills, on developing the ability to think clearly while expressing ideas in a logical manner, and on developing and perfecting lab skills and techniques. At the end of the course students can opt to take the AP Chemistry exam.

Anatomy and Physiology

1 credit

Prerequisites: Biology and Chemistry

Anatomy and Physiology at La Lumiere is a Science elective course designed for upperclassmen to explore an interest in the human body, how it is structured, and how it functions. The class will learn and review material related to both anatomy and physiology of the human body. Material will be delivered approximately 50% lecture based, 25% group and activity based (including laboratory work) and 25% individual presentation based. There will also be daily homework and/or reading assignments.

Forensic Science

0.5 credit

Prerequisites: Biology

Forensic Science is a semester-long course introducing students to some of the concepts behind forensic investigation. Students will learn methods of evidence detection and collection, integrity of evidence, and transformation of laboratory data to information suitable for a jury. They will study fingerprint analysis, DNA testing and analysis, hair and fiber analysis, blood analysis, basic forensic odontological and anthropological techniques for identification, processing of chemical evidence, and the use of spectroscopy in Forensics. Students will perform a number of practical laboratory techniques, research assignments, and case studies culminating in the full processing of a mock crime scene. Parents should be aware that some of the case studies in this course include violence and as such, they should use their judgement as to whether this is a suitable course for their child.

Physics

1 credit

Prerequisites: Biology

Physics is a yearlong survey that combines a conceptual approach to the subject with regular lab experiences and mathematical formulas. Mathematics is the language of physics, so students will regularly use skills learned in their math classes. Problem-

solving skills are particularly emphasized. Topics covered include motion, force, energy, electricity, magnetism, light, sound, particle physics, and modern physics.

AP Physics 1

1 credit

Prerequisites: Department approval

AP Physics 1 is an algebra-based physics course that is meant as a strong foundation to college physics classes. Students participate in a combination of hands-on laboratory activities and topic explorations along with collegiate-level problem sets to practice their logical reasoning skills. Topics covered in this course include a full study of basic kinematics and dynamics, circular and rotational motion, work and energy, sound and mechanical waves, and basic DC electrical circuits. Students will be asked to demonstrate their proficiency through laboratory and logical reasoning exercises. We expect all students in this course to take the AP Physics 1 exam in May.

AP Physics 2

1 credit

Prerequisites: Department approval

AP Physics 2 is an algebra-based physics course that is meant to continue the foundation formed in AP Physics 1. Students participate in a variety of hands-on laboratory activities and demonstrations, along with more traditional collegiate-level problem sets to practice their logical reasoning skills. Topics covered in this course include fluid dynamics, pressure and density, thermodynamics, geometric optics, electromagnetic waves, magnetism, and modern and nuclear physics. Students will be asked to demonstrate their proficiency through laboratory and logical reasoning exercises. We expect all students in this course to take the AP Physics 2 exam in May.



| Social Sciences

The Social Science Department is committed to teaching students more than just the dominant versions of events. We encourage students to think critically about history in order to foster their understanding of diverse cultural perspectives across different time periods. Through differentiated instruction and project based learning, students connect with history beyond the facts and figures. We value knowledge of the past as a way to comprehend the present and future.

Graduation Requirements

- 3 credits of Social Science
- Must include World History and US History

COURSES

World History 1

1 credit

Prerequisites: None

This course introduces students to world history by studying prehistoric and ancient cultures. It begins in prehistory and concludes with the fall of the Roman Empire. Examining change and continuity throughout the world will allow students to trace the origins of human societies. Cave paintings, megalithic structures, and various artifacts will be studied, as well as a number of other primary sources such as the Narmer Palette, Hammurabi's Code, Sennacherib's Prism, and the Cyrus Cylinder, among other historical documents, in order to learn how to evaluate evidence. The central goal of this course is to teach students how to think like historians. Developing critical thinking skills and

learning how to ask the right questions will enable students to gain insights into the past. Furthermore, analyzing maps and migration patterns will help students expand their geographical knowledge. The history of religion will also be taken into account so that students may recognize the pivotal role it has played in human history. Finally, this course aims to cultivate an interest and appreciation for life by the study of diverse cultures.

World History 2

1 credit

Prerequisites: World History 1

The World History I course will be a thematic exploration of major world developments and cultures from the Renaissance through the Second World War. The course will begin with the end of the “Dark Ages” and continue through the political, social, and economic changes which shifted the direction of history throughout the continents of Europe, Asia, and Africa. A goal of this course will be the use of various problem-solving and critical-thinking strategies to solve historical problems. In this design, history class is not the passive presentation of events. Students will be required to assume the active role as a participant in history engaged individually and cooperatively in active learning. A variety of primary sources will be utilized throughout the duration of the year, including but not limited to maps, art, architecture, music, poetry, literature, and historical texts. Throughout class meetings more emphasis is placed on students’ understanding themes and interconnections in world history and less emphasis on students memorizing facts of isolated events.

AP World History

1 credit

Prerequisites: B+ or higher in World History 1

This course explores major political, social, economic, and cultural developments from prehistory to the present day. The course will be broken down into major chronological areas in global history, focusing on thematic issues involving comparisons and analyses of changes and continuities over time. Although roughly chronological, the course occasionally takes the “long view” over several centuries. The vast chronological and geographical breadth of our topic will be mitigated by unifying themes stressed throughout the course including, but not limited to, the following: The nature and reliability of historical evidence, the interaction between human beings and their environment, the development and interaction of cultures (including exploration and cross-cultural influences in belief systems, arts, patterns of thought, science, and technology), the creation, expansion and interaction of economic systems on a regional, transregional and global scale, and the development and transformation of social structures. In addition, the course emphasizes the acquisition and development of historical skills such as crafting historical arguments, reasoning chronologically, comparing and contextualizing, and synthesizing and applying historical interpretation. We expect all students in this course to take the AP World History exam in May.

US History

1 credit

Prerequisites: World History 2 or AP World History

This course is a foundational, year-long introduction to the history of the United States. It begins two centuries before the creation of the United States, with the earliest encounters between Europeans and indigenous peoples in America and it ends at the beginning of the 21st century, with the terrorist attacks of September 11, 2001. As students develop an understanding of the basic narrative arc of US history they will practice the work of historians: interpreting primary sources, bringing together and making sense of diverse pieces of evidence, and making cogent arguments about the past. Students will be encouraged to question the dominant narrative of events, and to pay attention to how political, economic, social, and cultural developments shaped the lives of everyday people of various backgrounds.

AP US History

1 credit

Prerequisites: A- or higher in World History 2 or B+ or higher in AP World History

This course is intended to be an expansion of the knowledge learned in a US History course. This course will require students to go well beyond the memorization of historical facts and dates. Students will be expected to explore a variety of historical sources, both primary and secondary. In their exploration of US History from 1491 to the present-day, students will be expected to develop historical thinking skills and apply critical analysis to craft historical arguments. The course will seek to develop the four historical thinking skills set forth by the AP curriculum: chronological reasoning, contextualization, persuasive argumentation, and historical interpretation. The ultimate goal of this course is to prepare students for the Advanced Placement exam with the expectation that students study US History as amateur historians. We expect all students in this course to take the AP US History exam in May.

AP Psychology

1 credit

Prerequisites: Department approval

The purpose of AP Psychology is to introduce students to the systematic and scientific study of human behavior and mental processes. Course topics include Research, States of consciousness, personality, abnormal psychology, development, memory, learning, understanding the brain and testing/intelligence. A variety of teaching methods are incorporated including projects, demonstrations, media use, lectures, writing opportunities and class. We expect all students in this course to take the AP Psychology exam in May.

Microeconomics

0.5 credit

Prerequisites: Sophomore standing or higher

Economics is the study of choices that people make to attain their goals, given their scarce resources. Throughout the class study of microeconomics, we will examine both theoretical and real world applications of economic behaviors and systems. Specifically, microeconomics will study basic microeconomic concepts like the supply and demand model, elasticity, production and cost analysis, and market structures.

Macroeconomics

0.5 credit

Prerequisites: Sophomore standing or higher

Economics is the study of choices that people make to attain their goals, given their scarce resources. Throughout the class study of macroeconomics, we will examine both theoretical and real world applications of economic behaviors and systems. Specifically, macroeconomics will study basic economics concepts, GDP, unemployment, inflation, economic growth, the business cycle, the financial system, and the aggregate demand model.

Government

0.5 credit

Prerequisites: Sophomore standing or higher

This course is a one-semester comprehensive survey of the Constitution of the United States and the government it prescribes, how they developed over time and now function, and how they are interpreted today. Students will study the historical context in which the Constitution was written, consider the original intent of the “Founding Fathers,” and grapple with how subsequent generations of Americans have read and used its articles. After establishing a solid foundation in historical contexts, discussions then move thematically, focusing on the system of checks and balances between legislative, executive, and judicial branches. More than just studying this system, students will form and articulate their own interpretations of the Constitution and its amendments through group conversations and debates. Students will read and engage with current events, journalism, and news media, videos of Congressional sessions and hearings, audio recordings of Supreme Court sessions, and other vital elements of the American political process. The ultimate goal of this course is to equip students to begin participating in American democracy, as voters, observers, and citizens.

AP US Government

1 credit

Prerequisites: B+ or higher in AP World History or World History 2

This course seeks to foster an understanding and a love of the American political process in preparation for the AP United States Government & Politics exam. The course is equivalent to a college-level political science course, which means that the students will be expected to be active learners. Students will be expected to complete a thorough amount of required readings and research current political topics. The goal and focus of this course is to provide an introduction to an active political life. Students will be exploring the constitutional foundations of American politics, the nature of the American political process, the institutions of governance, and the policy choices made created by the American political process. We expect all students in this course to take the AP US Government exam in May.

AP Comparative Government

1 credit

Prerequisites: B+ or higher in AP World History or World History 2

The AP course in Comparative Government and Politics introduces students to the fundamental concepts and methods used by political scientists to study political institutions, with a geographic focus outside the United States. Students will practice the work of political commentators and develop their own interpretations of political data, writings, and processes in the six case countries relevant to the AP exam: the United Kingdom, Mexico, Russia, Nigeria, China, and Iran. Students will hone their abilities to describe major political concepts, analyze behaviors and consequences, and compare/contrast institutions across countries. As in the AP exam, comparative analysis is a central feature of the course. Comparative analysis means going beyond merely identifying and describing similarities and differences; it means attempting to understand and explain how these similarities and differences came to exist and why they matter. This sort of thinking can assist both in identifying problems within politics and in shaping policymaking. It can help create useful knowledge about the role of government in social, economic, and cultural life, giving us tools with which to evaluate whether governments have made things better or worse. One of the broad questions this course will ask is: how have certain political systems shaped the quality of life of those who participate in or live under them. The course further challenges us to ask how our own understandings of “quality of life,” human rights, and other values relate to our personal memberships in particular political communities. Just as travelling can tell us as much about ourselves and where we come from as it tells us about the places we visit, studying political life outside the United States can teach us valuable lessons about the specific political world in which we all currently live. We expect all students in this course to take the AP Comparative Government exam in May.



Theology & Philosophy

The Theology Department is dedicated to introducing students to and cultivating them in the intellectual and practical aspects of religious belief and philosophical reflection. This is accomplished by training them to engage critically and charitably with a wide array of religious and philosophical views on reality, ethics, God, and human nature.

Graduation Requirements

- 1 credit of Biblical Literacy (required as a freshman)
- 1 credit of Ethics (Senior capstone)
- 0.5 credit elective (optional)

COURSES

Biblical Literacy

1 credit

Prerequisites: None

In this class we will be studying the Old Testament (OT) and the New Testament (NT). It will enable students to recognize allusions to the OT and NT in literature, art, and Western culture. This class will focus on OT tradition and NT application, in order to encourage faith formation. During this term, a familiarization will be developed with the major characters, vocabulary, and stories in the Bible. Students will also be exposed to introductory theological material.

World Religions

0.5 credit

Prerequisites: None

This class begins and ends with humanity's big questions: 1) What is the meaning of

2) Is there a God?, 3) What happens after you die?, 4) Is the universe moral & just?, 5) What does it mean to be human? During this course, students will explore together how different world religions & cultures have answered these questions. Major philosophies explored will be Hinduism, Buddhism, Confucianism, Taoism, Native American Spirituality, Goddess Spirituality, Judaism, Christianity, and Islam. A major theme of this class is also to explore if there are different ways of knowing the answers to these big questions through the use of different faculties: reason, emotion, faith, imagination, intuition, language, memory, and experience. The goal of this course is to assist students in the exploration of these questions by looking at how different religions, cultures, and ways of knowing have approached them. As such, we will not only read about religious ideas but also experience them through doing yoga, meditation, mandala-making, tai-chi, calligraphy, and field trips.

Stories of Grace

0.5 credit

Prerequisites: None

In this course, we will look to dive deeper into the heart of a great mystery of faith, God's presence in each and every one of our lives. We will explore God's place in the modern world through four central texts (and some additional texts) that follow the difficult experiences of four heroes from the 20th and 21st centuries. These discussions will focus on the intersection of social issues and God's presence in our lives. The readings will challenge you to grow in your faith journey as well as answer many questions that you may have.

Ethics

1 credit

Prerequisites: Senior standing

As a formative senior course, Ethics challenges students to navigate questions of right and wrong. This course requires students to develop critical thinking, research and synthesize information from many perspectives, and articulate one's own perspective. Ethics is dedicated to developing these skills by means of class dialogue, establishing an introduction to logical principles, acquiring a familiarity with ethical theories through the close examination of the ideas of seminal philosophers, and learning the basics of the ethical issues in contemporary society.



World Languages

The World Language Department is committed to developing proficiency in our target languages and to cultivating interest in their respective cultures. The skills of listening, reading, writing, and speaking are consistently practiced in our language courses.

Graduation Requirements

- ☐ Students must reach and complete the third level of a non-native language

COURSES

French 1

1 credit

Prerequisites: None

In French 1 students are introduced to the sounds of the French language as they develop the four basic skills: understanding, speaking, reading, and writing. The emphasis during this first year will be on building a working vocabulary while learning basic grammatical concepts. Students are also introduced to aspects of French culture. From the first day of class students are encouraged to use the language as they participate in class discussions, review homework assignments, and perform oral presentations.

French 2

1 credit

Prerequisites: C- or higher in French 1

French 2 is designed to further develop the basic skills acquired in French 1. Basic concepts will be reviewed and more complex grammatical structures will be introduced. Students will be expected to communicate in French both orally and in writing. Additional readings and research will deepen students' knowledge of French culture.

French 3

1 credit

Prerequisites: C- or higher in French 2

French 3 will continue to develop the skills acquired in French 1 and 2. The course will review and reinforce the grammar and vocabulary already learned as well as introduce additional new material. The goal is to integrate the grammar and vocabulary into useful, authentic spoken and written language. Literary excerpts and film may be used as a basis for this integration. The majority of the class will be conducted in French.

French 4

1 credit

Prerequisites: B+ or higher in French 3

This course will include a thorough review of all previously taught grammar and will integrate it in all four skills with a goal of authentic usage regardless of subject matter. Literary selections and films will be used as the basis for this integration. Students will be expected to demonstrate the ability to communicate with reasonable fluency and accuracy in both spoken and written French.

AP French Language and Culture

1 credit

Prerequisites: Department approval

AP French is a college preparatory course where all language skills are practiced. Students who enroll in AP French must have taken French 4. Listening, speaking, reading, and writing are continuously enforced while simultaneously acquiring new vocabulary. A thorough review of previous grammatical structures is reinforced for proficiency. We will also explore the cultures of francophone countries around the world. Our reading and audio materials are taken from the AP French Language and Culture 5 steps to a 5 online text. We expect all students in this course to take the AP French Language and Culture exam in May.

Spanish 1

1 credit

Prerequisites: None

In Spanish 1 students are introduced to the sounds of the Spanish language as they develop the four basic skills: understanding, speaking, reading, and writing. The emphasis during this first year will be on building a working vocabulary while learning basic grammatical concepts. Students are also introduced to aspects of Spanish culture. From the first day of class students are encouraged to use the language as they participate in class discussions, review homework assignments, and perform oral presentations.

Spanish 2

1 credit

Prerequisites: C- or higher in Spanish 1

Spanish 2 is designed to further develop the basic skills acquired in Spanish 1. Basic concepts will be reviewed and more complex grammatical structures will be introduced. Students will be expected to communicate in Spanish both orally and in writing. Additional readings and research will deepen students' knowledge of Spanish culture.

Spanish 3

1 credit

Prerequisites: C- or higher in Spanish 2

Spanish 3 will continue to develop the skills acquired in Spanish 1 and 2. The course will review and reinforce the grammar and vocabulary already learned and introduce new material. The goal is to integrate the grammar and vocabulary into useful, authentic spoken and written language, and learn new structures allowing students to speculate, hypothesize, and create with the language. Students will also learn about the culture of the Spanish-speaking world.

Spanish 4

1 credit

Prerequisites: B+ or higher in Spanish 3

This course will include a thorough review of all previously taught grammar and will integrate it in all four skills with a goal of authentic usage regardless of subject matter. In addition to thoroughly reviewing grammar and vocabulary from Spanish 1-3, students will fine-tune and expand their grammar and vocabulary with new material. Students will also learn about the culture of the Spanish-speaking world. Students will be expected to demonstrate the ability to communicate with reasonable fluency and accuracy in both spoken and written Spanish. Upon completion of this course, students may be recommended to take AP Spanish Language and Culture.

AP Spanish Language and Culture

1 credit

Prerequisites: Department approval

This is a college preparatory course where all language skills are practiced. We continuously practice listening, speaking, reading and writing while simultaneously acquiring new vocabulary. All of the grammar that was previously learned is reinforced for proficiency. This course also emphasizes the cultures of the Spanish speaking countries by comparing them to our own communities. The course will be conducted primarily in Spanish. We expect all students in this course to take the AP Spanish Language and Culture exam in May.