

WELCOME TO LAKE MARY PREP

UPPER SCHOOL CURRICULUM GUIDE



Lake Mary
Preparatory School

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MISSION, VISION, VALUES

MISSION

Through a personalized approach to learning, Lake Mary Preparatory School inspires critical thought, personal achievement, a global perspective, and strength of character.

VISION

Founded in Unity, Diversity, and Integrity and Focused on Excellence

ACADEMIC ADMINISTRATION

EXECUTIVE TEAM

Headmaster	Jack Delman
Secondary School Principal	Robyn Wolfe
Secondary School Assistant Principal	Amy Petrousky
Director of College Counseling	Daron Gallina
Curriculum & Professional Development Coordinator	Mara Delgado
Registrar	Mary Anne Bender

DEPARTMENT HEADS

English	Victoria Barton
English Language Learners	Alison Alcobia
Fine Arts	Joe Barone & Tanna Orgeron
History	John Niven
World Language	Deborah Rodriguez
Mathematics	Brent Herold
Physical Education	Justin Varitek
Science	Bryan Moretz

VALUES

We believe in **Unity**

We are a caring and compassionate community composed of many different beliefs and traditions seeking commonalities in our experiences.

We embrace **Family**.

We perform best through trust and caring relationships.

We embrace **Integrity**.

It is our moral compass, defining our character, behavior, and the origin of our decisions.

We trust in **Teamwork**.

Individually we achieve goals; collectively we accomplish exceptional results.

MESSAGE FROM THE PRINCIPAL

Lake Mary Preparatory Upper School offers students in ninth through twelfth grades a well-rounded college preparatory environment focused on challenging students to stretch their minds and think critically amongst a globally minded student body. Our diverse student population represents fifty-seven countries. Lake Mary Prep's Upper School program is known for academic rigor - including twenty-one Advanced Placement courses, individualized college counseling, small class sizes, and a world class faculty. In addition to our extensive academic curriculum, Lake Mary Prep's Upper School offers grade level trips, weekly advisory meetings, a comprehensive athletic program, and diverse extracurricular experiences in the fine and technical arts. I am proud of our unique and personalized program full of school spirit and tradition that thoroughly embraces the Griffin high school experience. I look forward to sharing our dynamic program with you and your child.

BOARDING PROGRAM AT UNIVERSITY HALL

Lake Mary Preparatory School's campus includes an expansive and fully secured dormitory located on 12 acres of land boasting room for over 100 students including separate boys and girls wings. Amenities include: game room, TV lounge, fully equipped gym, volleyball and basketball courts, soccer field, dining hall, private study rooms, technology labs, spacious dorm rooms, laundry facilities, and an in house chef preparing two home cooked meals daily. A full time activities coordinator provides weekend excursions and activities including trips to local theme parks, beaches, and shopping. Annual Thanksgiving and Spring Break trips are included in tuition. English tutors are provided for students twice per week and private tutoring is available upon request. Our College Counselor and Residential Academic Advisor provide one-on-one guidance to develop plans for acceptance into top choice colleges and monitor the academic progress of boarding students. A full-time Registered Nurse and Social/Emotional Counselor are on site to provide additional student support. LMP's student body has always been diverse, and with addition of the boarding program our global minded vision has flourished.

MAKERSPACE

At Lake Mary Preparatory School, we strive to make Science, Technology, Engineering, Art, and Math, or STEAM, obtainable, real world, and hands-on. The MakerSpace at LMP allows students to participate in cross-curricular STEAM activities. Students can enrich their education in a variety of ways by utilizing state of the art technology such as a 3D printer, laser cutter, and Clear Touch interactive board. In the MakerSpace, students are able to take their ideas and turn them into reality by using materials and tools around them. They can collaborate with fellow students, innovate the future, and discover new possibilities both physically and virtually.



ADVANCED PLACEMENT

What is Advanced Placement?

AP represents college-level academic challenges. AP classes are college-level courses offered in English, Math, Science, Social Studies, Foreign Language, and Art. The work students do in AP will help them develop skills and study habits that will be vital in college. Colleges recognize that applicants with AP experiences are much better prepared for the demand of college courses.

How difficult are AP courses?

Compared with regular high school courses, AP courses are more demanding. Depending on the subject, students may read and write more, analyze material, synthesize ideas, solve problems, and evaluate. A student's investment in any AP course is sure to provide many returns as well as lifelong learning.

Once enrolled in an AP course, the student is expected to maintain solid performance, as evaluated by the instructor (semester grades of B- or higher). AP students are required to take the AP examination as their spring semester final examination.

Advanced Placement Course Offerings

AP Art History	AP Computer Science Principles	AP Physics C: Mechanics	AP Spanish Literature and Culture
AP Biology	AP English Language & Composition	AP Psychology	AP Statistics
AP Calculus AB	AP English Literature & Composition	AP Research	AP Studio Art 2D Design
AP Calculus BC	AP Environmental Science	AP Seminar	AP United States History
AP Chemistry	AP European History	AP Spanish Language and Culture	AP World History
	AP Government & Politics: US		

AP CAPSTONE DIPLOMA

AP Capstone is a College Board program that equips students with the independent research, collaborative teamwork and communication skills that are increasingly valued by colleges. The program cultivates curious, independent and collaborative scholars and prepares them to make logical, evidence-based decisions. AP Capstone is comprised of two AP courses - AP Seminar and AP Research - and is designed to complement and enhance the discipline-specific study in other AP courses.

Students at LMP may take AP Seminar in grades 10-12, followed by AP Research in grades 11 or 12. Students who earn a score of 3 or higher in AP Seminar and AP Research and on four additional AP exams of their choosing receive the AP Capstone diploma. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP exams receive the AP Seminar and Research certificate. Students earning the AP Capstone diploma will also receive public recognition during the award ceremony and at LMP's graduation ceremony.

ADVISORY

At Lake Mary Prep, we believe that advisory classes and character development are both important aspects of student social and emotional development. Due to this strong belief, our Upper School students participate in weekly advisory classes. These classes, held every Thursday, follow a written curriculum and focus on the character development and college preparedness of each student. What sets LMP apart from other schools is the one-on-one support we offer our students both academically and socially. This support comes from our teachers and administrators. Our advisory class environment, which is informal, fosters these student-faculty relationships.

Topics in advisory include: respect, character and integrity, digital citizenship, college planning, personal branding, college resume building, career exploration, interviewing, and life skills. Naviance, a college planning web-based resource, is a component of advisory throughout the comprehensive four year program. Through advisory, students are given the opportunity to attend weekly college round-up sessions run by our College Counselor. These sessions provide students the opportunity to work one-on-one with representatives from their top choice colleges and to engage in individualized planning.



GRADUATION REQUIREMENTS

Language Arts (4.0 Credits)	
English I, II, III, IV	4.0
Mathematics (4.0 Credits)	
Algebra I, Geometry, Algebra II	3.0
One additional math offering	1.0
Science (4.0 Credits)	
Biology	1.0
Chemistry	1.0
Two additional science offerings	2.0
Social Studies (4.0 Credits)	
World History	1.0
American History	1.0
Government/Economics	1.0
1 other offering	1.0
World Languages (2.0 Credits)	
Two consecutive years of a world language	2.0
Technology (1.0 Credit)	1.0
Fine Arts (2.0 Credits)	2.0
Physical Education (1.0 Credit)	1.0
Electives (4.0 Credits)	4.0
Includes additional courses from any area above.	
TOTAL CREDITS:	26.0

EXAMPLE 4-YEAR SCHEDULE

Level of Rigor	9th	10th	11th	12th
Standard Seminole State Valencia W. Florida FIU FAU	Algebra I English I Biology World History Spanish I Studio Art I TV Production Hope/PE	Geometry English II Chemistry Modern World History Spanish II Studio Art II Intro to Film Weight Training	Algebra II English III Physics US History Comp Programming Psychology/Sociology Weight Training	Math Analysis English IV Environmental Science US Gov/ Econ Yearbook Teachers Assistant Total Credits-29
Demanding USF UCF Stetson N. Florida	H. Algebra I (8th) H. Geometry H. English I Biology H. World History Spanish II Hope/ PE Studio Art I Photography	Algebra II H. English II Chemistry H. Modern World Hist. Spanish II Weight Training Studio Art II Graphic Design	Math Analysis English III Physics H. US History H. Spanish III Comp. Training Robotics	AP Statistics English IV Solar Energy US Gov/Econ AP Psychology Teachers Assistant Total Credits-31
Very Demanding FSU UF U of Miami	H. Algebra I (8th) Spanish I (8th) H. Geometry H. English I H. Biology AP World History Spanish II TV Production I Photography Hope/PE	H. Algebra II H. English II H. Chemistry H. Modern World Hist. H. Spanish III TV Production II AP Art History Choir	H. Precalculus AP English Language H. Physics AP US History H. Spanish IV AP Psychology Robotics Choir AP Seminar	AP Calculus AB H. English IV Solar Engineering AP US Government Comp Programming Choir AP Research Total Credits-34
Most Demanding Ivy League Stanford Georgetown Williams	H. Algebra I (7th) H. Geometry (8th) Spanish I (8th) H. Algebra II H. English I H. Biology AP World History Spanish II Graphic Design	H. Precalculus H. English II H. Chemistry AP European History H. Spanish III AP Biology AP Psychology Media Studies	AP Calculus AB AP English Language H. Physics AP US History H. Spanish IV AP Chemistry Humanities Comp Programming AP Seminar	AP Calculus BC AP English Literature AP Physics C Mech AP US Government AP Spanish Language Robotics AP Research Total Credits-35

ENGLISH COURSE DESCRIPTIONS

English I

Grade Level: 9

Prerequisite: None

This is a survey of literature course with a focus on learning how to critically read and write about fiction, poetry, and drama. Themed units of study include personal identity, lost innocence, and individual encounters with mortality and love. The writing process is reinforced throughout the course, and students will have the opportunity to write, revise, and create final drafts of critical and creative writing.

Honors English I

Grade Level: 9

Prerequisite: Teacher Recommendation

This is a survey of literature course with a focus on learning how to critically read and write about fiction, poetry, and drama. Themed units of study include personal identity, lost innocence, and individual encounters with mortality and love. Students in Honors English I have increased independent coursework and are driven toward a greater understanding of the components of literature across genres. The writing process is strongly reinforced throughout the course readying students for the AP English program.

English II

Grade Level: 10

Prerequisite: English I

This course begins with the study of Greek, Hindu, and Norse mythology cultivating a broader worldview and demonstrating the universality of myths and Jungian archetypes. Students will apply this knowledge to a variety of authors ranging from Renaissance writers like Niccolo Machiavelli to the very contemporary Salman Rushdie. Students will conclude the year by studying nonfiction and practicing college-level reading and writing skills. English II focuses on college preparedness and emphasizes grammar, academic vocabulary building, and engaging projects. By the end of this course, students will complete two major academic papers and major group projects.

Honors English II

Grade Level: 10

Prerequisite: English I and Teacher Recommendation

This course begins with the study of Greek, Hindu, and Norse mythology cultivating a broader worldview and demonstrating the universality of myths and Jungian archetypes. Students will apply this knowledge to a variety of authors ranging from Renaissance writers like Niccolo Machiavelli to the very contemporary Salman Rushdie. Students will conclude the year by studying nonfiction and practicing college-level reading and writing skills. This course focuses on college preparedness and emphasizes academic writing. By the end of this course, students will complete four major academic papers including research writing and literary criticism. The writing process is strongly reinforced throughout the course readying students for the AP English program.

English III

Grade Level: 11

Prerequisite: English II

This course examines the theme of identity with special emphasis placed on close reading and annotation skills, as well as critical writing using appropriate academic support. Students in this course are expected to think and work independently. Units of study include: Native American literature and an examination of the evolution of the American Dream. Students will complete the year by participating in a mock undergraduate research conference.

Honors English III

Grade Level: 11

Prerequisite: English II and Teacher Recommendation

This course examines the theme of identity with special emphasis placed on close-reading and annotation skills, as well as critical writing using appropriate academic support. Students in this course are expected to think and work independently. College-level work and expectations are introduced at this level. Students in the honors level are given a high degree of autonomy and will demonstrate mastery in critical thinking and writing. Units of study include: Native American literature and an examination of the evolution of the American Dream. The writing process is strongly reinforced throughout the course readying students for the AP English program.

English IV

Grade Level: 12

Prerequisite: English III

This course takes a literary and historical approach and will begin the study of British literature with a lecture series on the history of English. As students prepare for college, they will be planning and writing a college essay. Students will read works from the Medieval period before shifting to the Renaissance and a focus on Shakespeare. The year will conclude with writing intensive assignments focusing on collegiate freshman-composition prompts allowing for fluid transition upon graduation.

Honors English IV

Grade Level: 12

Prerequisite: English III and Teacher Recommendation

This course takes a literary and historical approach and will begin the study of British literature with a lecture series on the history of English. As students prepare for college, they will be planning and writing a college essay. Students will read works from the Medieval period before shifting to the Renaissance and a focus on Shakespeare. Honors students will show mastery in critical thinking and writing, discussion, oral presentation, and peer editing. Students will conclude the year with writing intensive assignments focusing on collegiate freshman-composition prompts allowing for fluid transition upon graduation.



AP English Language and Composition

Grade Levels: 11-12

Prerequisite: Teacher Recommendation

Students in this introductory-level college course carefully read and analyze a wide variety of nonfiction. Understanding how authors use language to create meaning is perhaps the most crucial of concepts. Students also learn the history of rhetorical argument, how to frame and recognize arguments, and modern applications of rhetorical and persuasive techniques. All reading is designed to produce critical thinkers and writers and to prepare them for the AP English Language and Composition Exam. Students entering this class will have a strong foundation in critical thinking and writing. Summer reading and writing are required for entrance to this course. As this is a college-level course, performance expectations are high, and the workload is challenging. This course is open to juniors and seniors whose past grades and work ethic indicate readiness for this college-level course.

AP English Literature & Composition

Grade Levels: 11-12

This course prepares students to become careful and critical readers and writers. Students are engaged in reading representative works from various literary eras and genres. In this course, students will improve their skills in close reading, paying careful attention to historical context as well as textual details such as structure, style, theme, figurative language, archetype, tone, and attitude. Thoughtful interpretation and critical writing through various approaches will take place throughout the course. Students entering this class are expected to have a strong foundation in critical thinking and writing. As this is a college-level course, performance expectations are high, and the workload is challenging. Writing assignments take many forms, including: practice AP prompts from past AP Literature exams, which are evaluated by peers and the teacher; reaction papers; practice essays in various modes and representing different critical approaches; larger projects involving research and requiring MLA citation, and other assignments throughout the year.

SCIENCE COURSE DESCRIPTIONS

Biology

Grade Level: 9

Prerequisite: None

This course provides a general overview of the study of living organisms. The major units covered are: the scope and science of biology, ecology, cells, energy transformations, genetics, the history of life and early earth, evolution, taxonomy, microorganisms, plants, and animals. Students will show mastery of fundamental concepts of the above-mentioned topics and problem solving skills using scientific inquiry in a laboratory setting.

Honors Biology

Grade Level: 9

Prerequisite: Teacher Recommendation

This course provides a detailed overview of the study of living organisms. The major units covered are: the scope and science of biology, ecology, cells, energy transformations, genetics, the history of life and early earth, evolution, taxonomy, microorganisms, plants, and animals. Students will show mastery of fundamental concepts of the above-mentioned topics and problem solving skills using scientific inquiry in a laboratory setting. This course will require a greater depth of knowledge, detail, and critical thinking, ensuring preparedness for AP courses.

Chemistry

Grade Levels: 10-12

Prerequisites: Biology and Algebra I

This course focuses on the understanding of natural phenomena and chemical and physical changes that occur. Topics emphasized are properties and measurement, states of matter, structure of the atom, periodic trends, chemical bonding and reactions, and stoichiometry. The lab component of this course provides students with hands-on opportunities with equipment, experimental procedure, and it introduces the use of empirical evidence to support chemical principles.

Honors Chemistry

Grade Levels: 10-12

Prerequisites: Honors Biology, Algebra I, and Teacher Recommendation

This course focuses on the understanding of natural phenomena and the chemical and physical changes that occur. This course emphasizes ideas on properties and measurement, states of matter, structure of the atom, ion and molecules, periodic trends, chemical bonding and reactions, and stoichiometry. The lab component of this course provides students with hands-on opportunities with equipment, safety, experimental procedure, and it introduces the use of empirical evidence to support chemical principles. Students in this course will require a greater depth of knowledge, detail, and critical thinking, ensuring preparedness for AP courses.

Physics

Grade Levels: 11-12

Prerequisites: Algebra II and Chemistry

This course teaches an understanding of the physical world using mathematical equations, models, and experimental results. The lab component for this course allows for hands-on application of the concepts taught. Course topics include Newtonian mechanics, energy, momentum, wave characteristics, sound, electricity, and magnetism.

Honors Physics

Grade Levels: 11-12

Prerequisites: Honors Algebra II, Honors Chemistry, and Teacher Recommendation

This course teaches an understanding of the physical world using mathematical equations, models, and experimental results. The lab component for this course allows for hands-on application of the concepts taught. In this course, students are expected to show high levels of independence, motivation, and academic skill. Course topics include Newtonian mechanics, energy, momentum, wave characteristics, sound, electricity, and magnetism.

Environmental Science

Grade Levels: 11-12

Prerequisites: Chemistry

This course is the study of how the natural world works, how our environment affects us, and how we affect the environment. Through case studies, classwork, labs, and field studies, this course will explore the scientific, economic, political, and social aspects of the problems facing our planet today.



Solar Energy and Engineering

Grade Level: 12

Prerequisites: Chemistry and Physics

This course integrates the concepts of engineering and solar energy. Students will exhibit a high degree of independence, collaboration, and a strong work ethic. Course topics include the history of engineering, the nature of engineering and its impact on society, and the connection of engineering to science and mathematics. Concepts and applications of solar energy are researched through projects and experiments.

Astronomy (Semester Course)

Grade Levels: 11-12

Prerequisite: Algebra II

This course includes the study of the Earth, its atmosphere, and other celestial objects. Inquiry through observation and exploration to develop understanding of celestial objects is emphasized. Key topics include history of astronomy, space, our galaxy, solar system, mathematical principles pertaining to planetary motion and space travel, artistic exploration of space, telescopes, life cycle of stars, and cosmology.

Forensic Science (Semester Course)

Grade Levels: 11-12

Prerequisites: Biology and Chemistry

This course focuses on the application of science used for solving crimes. Students will explore the interdisciplinary sciences used to collect, identify, and analyze crime scene evidence required for presentation in a court of law. This hands-on course will include fingerprinting, handwriting analysis, blood typing, hair and fiber identification, bloodstain pattern analysis, ballistics patterns, crime scene protocol, and chain of custody. Case studies and current events will be discussed.

Aviation & Space Science (Semester Course)

Grade Levels: 11-12

Prerequisite: Algebra II

This course is designed for students interested in engineering concepts required for designing airplanes and launching rockets. The history of aviation including the space program, requirements for becoming a pilot or an astronaut, the use of a compass and GPS system, and knowledge of common celestial events and objects are included in the curriculum.

Human Anatomy

Grade Levels: 11-12

Prerequisites: Chemistry

This course provides a general overview of the structure and function of the human body. Topics include cell chemistry, tissues, and all organ systems. In this course, students will study the normal state of anatomical function and the diagnosis of pathological conditions. This course will provide a foundation for students interested in health related fields of study.



Marine Biology

Grade Levels: 11-12

Prerequisites: Biology and Chemistry

In this course, students will study the inhabitants and processes of the ocean by investigating ocean organisms and the physical characteristics of the ocean. Topics include analysis of meteorological and animal tracking data to examine how marine and animal movements are connected to the physical and chemical properties of the ocean, the properties of water, human impacts on the ocean, and the specific characteristics of many different marine ecosystems.

AP Physics C: Mechanics

Grade Levels: 11-12

Prerequisites: Honors Physics, AP Calculus AB and Teacher Recommendation

This course is designed for students who plan to specialize in physical science or engineering and is strongly recommended as a second year physics course. Students are expected to develop a deep understanding of the fundamentals of classical mechanics and apply their critical thinking skills to complex physical problems. Students will use methods of differential and integral calculus to solve and understand physical problems.

AP Environmental Science

Grade Levels: 11-12

Prerequisites: Honors Biology, Honors Chemistry and Teacher Recommendation

This course is designed to be the equivalent of an introductory college course in environmental science. Students will be introduced to the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

AP Biology

Grade Levels: 10-12

Prerequisites: Honors Biology, Algebra I, and Teacher Recommendation

This course is taught at the college level for high school students who have demonstrated proficiency and interest in the field of biology. The course content is divided into the following four Big Ideas: Evolution, the diversity and unity of life; Biological systems, free energy and homeostasis; Living systems, genetics and cell communication; and Ecology. This course has an increased emphasis on science practices and inquiry-based learning. Students are encouraged to focus on the relationships, processes, mechanisms, and applications of concepts.

AP Chemistry

Grade Levels: 11-12

Prerequisites: Honors Chemistry, Algebra II and Teacher Recommendation

This course is designed to provide a first-year college chemistry experience both conceptually and in the laboratory. Course topics include atomic theory and structure, periodic trends and relationships, chemical bonding, chemical reactions, principles of matter behaviors, solutions, acids/bases/salts, chemical equilibrium, principles of oxidation/reduction, chemical kinetics, electrochemistry, thermochemistry, nuclear chemistry and the chemistry of hydrocarbons and organic functional groups. By the end of this course, students will have further developed their problem solving and critical thinking skills.

MATHEMATICS COURSE DESCRIPTIONS



Algebra I

Grade Levels: 7-9

Prerequisite: Pre-Algebra

This course begins the study of the structure of Algebra. Course topics include real numbers, solving and analyzing linear equations, graphing relations and functions, solving linear inequalities, polynomials, factoring, quadratic functions, radical expressions, and rational expressions.

Honors Algebra I

Prerequisite: Honors Pre-Algebra and/or Teacher Recommendation

This course is the advanced study of the structure of Algebra. The topics include an in depth study of real numbers, solving and analyzing linear equations, graphing relations and functions, solving linear inequalities, polynomials, factoring, quadratic functions, radical expressions, and rational expressions.

Grade Levels: 7-9

Geometry

Prerequisite: Algebra I

In this course, students study congruent segments and angles, circle chords, secants and tangent segments, parallel and perpendicular lines, angle measure in triangles, direct and indirect triangle congruence and similarity, proofs, logic, similar triangles, transformations, the Pythagorean Theorem, geometric constructions, coordinate geometry, and surface area and volume of solids.

Grade Levels: 8-10

Honors Geometry

Prerequisites: Honors Algebra I and/or Teacher Recommendation

This course is the advanced study of congruent segments and angles, circle chords, secants and tangent segments, parallel and perpendicular lines, angle measure in triangles, direct and indirect triangle congruence and similarity, proofs, logic, similar triangles, transformations, the Pythagorean Theorem, geometric constructions, coordinate geometry, and surface area and volume of solids.

Grade Levels: 8-10

Algebra II

Prerequisites: Geometry

This course continues the study of the structure of Algebra and covers topics including relations, functions, graphs, polynomial and rational expressions, exponents, logarithms, complex numbers, sequences, series, and word problems. A TI-Nspire CX calculator is required for this course.

Grade Levels: 9-11

Honors Algebra II

Prerequisites: Honors Geometry, and/or Teacher Recommendation

This course is an advanced study of the structure of Algebra and covers topics including relations, functions, graphs, polynomial and rational expressions, exponents, logarithms, complex numbers, sequences, series, and word problems. A TI-Nspire CX calculator is required for this course.

Grade Levels: 9-11

Math Lab

Grade Levels: 9-12

Co-requisite: Algebra I, Geometry or Algebra II

In this course, students will receive individualized support for the math class in which they are currently enrolled. The focus is on algebraic skills: fractions, adding and subtracting positives and negatives, systems of equations, and graphing. This course does not earn math credit.

Math Analysis of Functions

Grade Levels: 10-12

Prerequisite: Algebra II

This course continues the study of the structure of Algebra. Topics include the review of the structure and properties of the real number system, along with the study of relations, functions, graphs, polynomial and rational expressions, exponents, logarithms, and word problems. A TI-Nspire CX graphing calculator is required for this course.

**Honors Pre-Calculus**

Grade Levels: 10-12

Prerequisites: Honors Algebra II and/or Teacher Recommendation

This course continues the study of Algebra, Geometry, and incorporates advanced Trigonometry. Topics of study include exponential functions, logarithmic functions, trigonometric functions, analytic trigonometry, vectors, sequences, series, probability, analytic geometry, parametric equations, polar equations, and limits. A TI-Nspire CX Graphing Calculator is required for this course.

Probability and Statistics

Grade Levels: 11-12

Prerequisites: Algebra II

This course introduces students to collecting, analyzing, and drawing conclusions from data. Students will frequently work on projects involving the gathering and analysis of real world data. A TI-Nspire CX Graphing Calculator is required for this course.

Honors Calculus

Grade Levels: 11-12

Prerequisite: Honors Pre-Calculus

This course enables students to develop knowledge and skills in Calculus concepts while strengthening and extending concepts learned in previous mathematics courses. Content includes, functions, differentiation, exponential and logarithmic functions, and integration. A TI Nspire CX calculator is required for this course.

AP Calculus AB

Grade Levels: 11-12

Prerequisites: Honors Pre-Calculus and Teacher Recommendation

The purpose of this course is to prepare students to take the AP Calculus (AB) exam. The content includes limits, differentiation methods and applications, and integration methods and applications. Successful completion of this course is comparable to taking a college level, Calculus I course. A TI-Nspire CX graphing calculator is required for this course.

AP Calculus BC

Grade Level: 12

Prerequisite: AP Calculus AB

The purpose of this course is to prepare students to take the AP Calculus (BC) exam. The content includes a deeper understanding of the concepts taught in AP Calculus AB including more integrations methods, parametric equations, polar equations, vectors, sequences, and series. Successful completion of this course is comparable to taking college level, Calculus I and II courses. A TI-Nspire CX graphing calculator is required for this course.

AP Statistics

Grade Levels: 10-12

Prerequisites: Honors Pre-Calculus or Teacher Recommendation

This course draws connections between all aspects of the statistical process including design, analysis, and conclusions. AP Statistics teaches students how to communicate methods, results, and interpretations using the vocabulary of statistics. Class discussion is encouraged to develop student's ability to communicate statistically. A TI-Nspire CX graphing calculator is required for this course.

HISTORY COURSE DESCRIPTIONS

World History

Grade Level: 9

Prerequisite: None

In this course, students will further develop their ability to think analytically and critically as they refine their historical knowledge. Students will utilize both primary and secondary sources and case study interpretations will be developed. This course will cover the approximate historical eras of Prehistoric times through Imperialism.

Honors World History

Grade Level: 9

Prerequisite: Teacher Recommendation

In this course, students will further develop their ability to think analytically and critically as they refine their historical knowledge. Students will utilize both primary and secondary sources and case study interpretations will be developed. This course will cover the approximate historical eras of prehistoric times through Imperialism. It is required that each student demonstrate the ability to problem solve, think critically, and present higher order thinking in writing.



Modern World History

Grade Level: 10

Prerequisite: None

This course examines historical patterns and changes to analyze how history informs decision making today. Students will enhance their knowledge of world affairs and international relations. By the end of this course, students will be able to critically discuss the causes and effects of current world issues and their implications. Analysis of historical documents is emphasized.

Honors Modern World History

Grade Level: 10

Prerequisite: Teacher Recommendation

This course examines historical patterns and changes to analyze how history informs decision making today. Students will enhance their knowledge of world affairs and international relations. Students will be able to critically discuss the causes and effects of current world issues and their implications. Analysis of historical documents and the development of higher level research and writing skills is emphasized.



United States History

Grade Level: 11

Prerequisite: None

This course examines the history of the development of the United States by examining connections to the past to prepare students to become participating members of a democratic society. Students will trace and interpret the political, economic, and sociological development of the United States. The content emphasis is on the years immediately preceding the Civil War to the present, with focus on inquiry and interpretation.

Honors United States History

Grade Level: 11

Prerequisite: Teacher Recommendation

This course examines the history of the development of the United States by examining connections to the past to prepare students to become participating members of a democratic society. Students will trace and interpret the political, economic, and sociological development of the United States. The years immediately preceding the Civil War to the present are emphasized with a focus on inquiry and interpretation. Critical analysis, research, and writing skills will be strongly emphasized and developed throughout the year.

United States Government (Semester Course)

Grade Level: 12

Prerequisite: None

This course will explore the political theory and everyday practices that shape our government and public policies. Students will develop a critical understanding of the government's development, structure, and the rights and responsibilities of citizenship.

Honors United States Government (Semester Course)

Grade Level: 12

Prerequisite: None

This course will explore the political theory and everyday practices that shape our government and public policies. Students will develop a critical understanding of the government's development, structure, and the rights and responsibilities of citizenship. Students will make connections between course content and current affairs, and be encouraged to demonstrate critical thinking throughout the year.

Economics with Financial Literacy (Semester Course)

Grade Level: 12

Prerequisite: None

This course serves as an introduction to the discipline of economics. The course will cover both microeconomics and macroeconomics. Students are introduced to the basics of Financial Literacy including budgeting, savings, credit, loans, insurance, and investing. In addition, the course includes the study of the stock market, real estate, and entrepreneurship.

Honors Economics with Financial Literacy (Semester Course)

Grade Level: 12

Prerequisite: Teacher Recommendation

This course serves as an advanced introduction to the discipline of economics. The course will cover both microeconomics and macroeconomics. Students are introduced to the basics of Financial Literacy including budgeting, savings, credit, loans, insurance, and investing. In addition, the course includes the study of the stock market, real estate, and entrepreneurship. Critical analysis, research, and writing skills will be strongly emphasized and developed throughout the year.



AP World History

Grade Level: 9

Prerequisite: Teacher Recommendation

This course is designed to be the equivalent of a freshman college survey course in World History. Students will explore prehistory to the Modern Era through a variety of themes. Critical analysis skills will be developed and applied. Writing skills are a central focus as students work to analyze documents, compare periods of world history, and understand why continuity and change occurs. Students' ability to respond to multiple choice questions, short answer, long essays, and DBQs will be developed through the year in preparation for the AP exam.

AP European History

Grade Level: 10

Prerequisite: Teacher Recommendation

This course is designed to be the equivalent of a freshman college survey course in Western Civilization. Students will examine the history of Europe from the late Middle Ages to present day from many perspectives including cultural, intellectual, and artistic. Writing skills are a central focus as students work to analyze documents, compare periods of European history, and understand why continuity and change occurs. Students' ability to respond to multiple choice questions, short answer, long essays, and DBQs will be developed through the year in preparation for the AP exam.

AP United States History

Grade Level: 11

Prerequisite: Teacher Recommendation

This course is designed to be the equivalent of a freshman college survey course in American History. Topics include the major events of United States history since the 15th century, focusing in particular on the political, social, and economic causes and effects of those events. Writing skills are a central focus as students work to analyze documents, compare periods of United States history, and understand why continuity and change occurs. Students' ability to respond to multiple choice questions, short answer, long essays, and DBQs will be developed through the year in preparation for the AP exam.

AP United States Government and Politics

Grade Level: 12

Prerequisite: Teacher Recommendation

This course is designed to be the equivalent of a freshman college survey course in American government. Students will develop a critical understanding of the government's origins, development, structure, and role in making and enforcing public policy. Students will make connections between course content and current affairs and develop the ability to respond to multiple choice questions and free response essays in preparation for the AP exam.



ELL COURSE DESCRIPTIONS

ELL I-III

Grade Levels: 9-11

Prerequisite: Placement Test and Teacher Recommendation

ELL students are tested upon admission and placed in ELL or English classes according to their language ability. These courses focus on developing vocabulary, grammar, reading, writing, listening, and speaking skills. Students will learn strategies to be successful in both academic and social environments. Strategies include listening for details, understanding vocabulary from context, note taking, summarizing, skimming and scanning for information, and writing well-organized texts.

ELL Developmental Language Arts I-III

Grade Levels: 9-11

Prerequisite: Placement Test and Teacher Recommendation

This course prepares students to be successful in mainstream English classes. Students study a variety of leveled fiction and nonfiction texts, develop analytical skills, and practice reading strategies. Students learn to respond to text orally and in writing, as well as apply literary terms and concepts to texts.

ELL World History

Grade Levels: 9-10

Prerequisite: Teacher Recommendation

This course provides students with a supportive learning environment that recognizes the need for language development at the same time as gaining content knowledge and social studies skills. Students will develop reading, writing, and vocabulary skills through scaffolded assignments that are applicable to the study of history. Students will have the opportunity to explore and analyze historical events and understand the relationship between events within the context of world history. This course will cover the approximate historical eras of prehistory through World War II.

ELL United States History

Grade Levels: 10-11

Prerequisite: Teacher Recommendation

This course provides students with a supportive learning environment recognizing the need for language development at the same time as gaining content knowledge and social studies skills. Students will develop reading, writing, and vocabulary skills through scaffolded assignments that are applicable to the study of history. Students will have the opportunity to explore and analyze historical events and understand the relationship between events within the context of world history. This course will cover the post-Revolutionary War period of the early nineteenth century through the early twentieth century.



English Workshop I-III

Grade Levels: 9-11

Prerequisite: Teacher Recommendation

This course is for mainstreamed ELL students who need additional support in English courses. In this course, students analyze the same novel as their English class. Students are able to study the texts at a slower pace and with scaffolding that makes the texts more accessible. Students can use the workshop to practice or clarify any skills and concepts that are introduced during English class. Ample opportunities are given to develop speaking skills in academic discussions and to benefit from peer and teacher conferences to develop writing skills. This course does not earn an English credit.

TOEFL Prep

Grade Level: 11-12

Prerequisite: Teacher Recommendation

This semester long course is suitable for juniors and seniors who speak English as a second language. This course introduces students to the TOEFL test, questioning styles, grading rubrics, and expectations. Students will focus on reading, writing, listening, speaking, and vocabulary comprehension.

LANGUAGE COURSE DESCRIPTIONS

French I

Grade Levels: 9-12

Prerequisite: None

In this course, students develop comprehension skills through listening, speaking, writing, and reading the language. Students learn basic grammar, vocabulary, and cultural aspects of the language through thematic units. By the end of this course, students will communicate using simple sentences to express ideas on various topics and make connections with the English language.

French II

Grade Levels: 9-12

Prerequisite: French I or Teacher approval upon completion of placement test

This course will strengthen students' use of the language through the communicative skills of listening, speaking, reading, and writing through thematic units. At this level, students' ability to produce and understand the language will allow students to think critically and expand their vocabulary knowledge from culturally authentic sources. By the end of this course, students will communicate using complex sentences to express ideas on a variety of topics and make connections with the English language.



Spanish I

Grade Levels: 9-12

Prerequisite: None

This is an introductory course to the Spanish language. Students will develop comprehension skills in Spanish through listening, speaking, writing, and reading. Students will learn basic grammar, vocabulary, and cultural aspects of the language through thematic units. By the end of this course, students will be able to communicate using simple sentences to express ideas on various topics.

Spanish II

Grade Levels: 9-12

Prerequisite: Spanish I or Teacher approval upon completion of placement test
This course will strengthen students' use of the language through the communicative skills of listening, speaking, reading, and writing through thematic units. Students will expand their vocabulary using culturally authentic sources and communicate using complex sentences orally and in writing.



Grade Levels: 10-12

Honors Spanish III

Prerequisite: Spanish II or Teacher approval upon completion of placement test

In this course, students will be presented with advanced grammar structures while reviewing, reinforcing, and gradually expanding previously studied concepts and vocabulary. Thematic units guide students to use authentic language through structured practice achieving creative personalized expression. Students will express themselves in the language and perform at a higher level of proficiency.

Honors Spanish IV

Grade Levels: 11-12

Prerequisite: Spanish III or Teacher approval upon completion of placement test

In this course, students study advanced and complex grammar that will broaden their understanding of the written and spoken language. Analysis and interpretation of authentic sources in literature, art, history, and current events will further students' understanding of Spanish culture. Students will read, write, and speak at an advanced level introducing them to Pre AP Language and Culture activities.

AP Spanish Language and Culture

Grade Level: 12

Prerequisite: Teacher Recommendation

In this course, students will communicate in Spanish, know and understand Spanish and Hispanic cultures, make connections with other disciplines, and acquire information using the Spanish language. Students will strengthen their command of the language in all four skills: listening, reading, writing, and speaking. Students will be able to understand and respond to conversations, lectures, oral presentations, newspapers, internet articles, and short stories. At the end of this course, students will take the AP Spanish Language and Culture Exam.

AP Spanish Literature and Culture

Grade Level: 12

Prerequisite: Teacher Recommendation

This course presents a thematic approach to the study of Spanish Literature and Culture. Themes are presented from readings of medieval to modern times allowing students to explore the interdisciplinary connections between literary works and other artistic forms of expression such as music, paintings, architecture, and film. Students read critically, analyze representative works of Spanish literature genres, and learn the terminology associated with critical reading. Identifying the different elements of style and interpreting Spanish text orally and in writing, students demonstrate use of the language in all three modes of communication: interpersonal, interpretive, and presentational. At the end of this course, students will take the AP Spanish Literature and Culture Exam.

Chinese I

Grade Levels: 9-12

Prerequisite: None

In this course, students will develop comprehension skills in Mandarin Chinese through a linguistic, communicative, and cultural approach to language learning. Emphasis is placed on the development of listening and speaking skills and on the acquisition of the fundamentals of applied grammar. Character formation is incorporated into the lessons to enhance writing skills. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course.

Chinese II

Grade Levels: 10-12

Prerequisite: Chinese I

In this course, students continue to develop comprehension skills in Mandarin Chinese through a linguistic, communicative, and cultural approach to language learning. Emphasis is placed on students' mastery of character reading. Grammar structure will become more complex, and students will be required to speak in present and past tense. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course.

Honors Chinese III

Grade Levels: 10-12

Prerequisite: Chinese II and Teacher approval upon completion of placement test

In this course, emphasis is placed on students' ability to express themselves orally and in writing using the present, past and future tense. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course. By the end of this course, students will function at an intermediate level in any Chinese-speaking region.

Honors Chinese IV

Grade Levels: 11-12

Prerequisite: Honors Chinese III and Teacher approval upon completion of placement test

This course expands conversational and written skills and examines Chinese arts, history, economics, and society. Emphasis is placed on the skills needed for reading authentic documents and writing formal reports and short essays that articulate a point of view on specific subjects. By the end of this course, students will function at an advanced level in any Chinese-speaking region.

Chinese Language and Culture

Grade Levels: 9-12

Prerequisite: Native Chinese Speakers

The first semester of this course focuses on writing through the study of films, music, and literature. Students analyze and interpret various literary works. The second semester of this course focuses on the study of modern Chinese art. By the end of this course, students will have knowledge and insight into Chinese culture through various genres.

FINE ARTS COURSE DESCRIPTIONS

Beginning Band

Grade Levels: 9-12

Prerequisite: None

This course focuses on the instrument selection process, music theory, and the fundamentals of music and instrumental performance. Students will transition into the Symphonic Band in the second semester. Students will participate in at least 4 performances each year. Attendance at after school rehearsals and performances is required.



Symphonic Band I-IV

Grade Levels: 9-12

Prerequisite: Non-band instruments may participate with teacher recommendation.

This course is open to all students with at least one year of playing experience on a standard band instrument. Emphasis is placed on the development of increased proficiency with a musical instrument. This ensemble performs musical pieces at the advanced level. Symphonic Band serves as the Pep Band for home football games and participates in a minimum of 4 school performances each year. Attendance at after school rehearsals and performances is required.

Chorus

Grade Levels: 6-12

Prerequisite: Director Approval

This course is designed to develop choral skills in students who are interested in vocal performance. The foundation of the program is to develop an understanding of fundamentals for proper singing techniques. A wide range of styles and genres will be explored in this course. Attendance at after school rehearsals and performances is required.

Introduction to Drama Grade Levels: 9-12

Prerequisite: none

This course will introduce students to the four main pillars of theatre: script analysis, performance, directing, and design. Students will learn how to read, map, and interpret contemporary texts intended for the stage. In this course, students will develop their acting abilities with audition preparation improvisational theater. Students, as directors, will oversee the process of dramatic skits and develop creative decision making abilities. Throughout the course, students will have the opportunity to work independently and collaboratively to provide valuable critiques, immerse into production oriented goals, and create theatre.



Acting

Grade Levels: 10-12

Prerequisite: Introduction to Drama

This course is designed for students who have a desire to expand their knowledge of the performance arts intended for stage and film. A safe and constructive environment is provided for students to learn about proper monologue selection and analysis, stage and film auditioning techniques, intensive studies of historical and contemporary actors, and improvisational arts. Students will also have the opportunity to attend Florida Thespian competitions and collaborate with local film studios to receive feedback from seasoned directors and performers to help shape performance resumes and portfolios.

Technical Theatre (Semester Course)

Grade Levels: 9-12

Prerequisite: none

This course focuses on stagecraft, design, set and prop construction, lights, and sound. Students will learn about the elements of design in order to observe, define, and create original production concepts of their own. Scale set models will be constructed to display artistic choices and craftsmanship. Students will be required to apply their knowledge on the Lake Mary Prep Stage in the fall and spring productions. Students will have the opportunity to attend productions off campus to enrich their understanding of theatre design and broaden their imaginations.

Costume and Makeup (Semester Course)

Grade Levels: 9-12

Prerequisite: none

This course focuses on theatrical costume and makeup design. Students will design costumes for productions. A wide variety of special effect makeup instruction will replicate looks from various genres. Students will be required to assist in the costuming of the fall and spring productions as part of the course work. International Thespian Society provides the opportunity for aspiring designers to compete against local schools at district competitions.

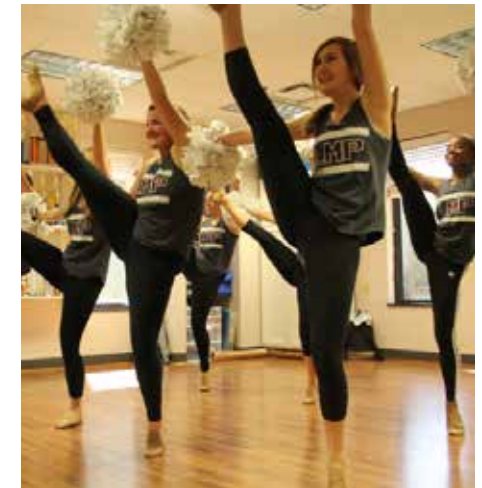
Dance I-IV

Grade Levels: 9-12

Prerequisite: Audition and Teacher Recommendation

This course focuses on dance genres including cheer, pom, jazz, hip-hop, and lyrical/contemporary. Students will explore and practice dance fundamentals such as technique, body alignment, strength, flexibility, and improvisation using the elements of dance: body, energy, space, and time. Students will learn basic choreographic principles, processes, and structures. Dancers will utilize these skills and techniques to perform choreographed pieces. Individual student choreography will increase confidence, ability, and performance. Dancers will perform at annual events such as athletic functions, community events, and dance recitals. All students entering the class must audition and meet the minimum requirements for the advanced class.

Each year, the dancers will perform at various events such as athletic functions, community events, and dance recitals. Students will be expected to purchase costumes and their costumes are owned, once purchased.



Television Production I-IV

Grade Levels: 9-12

Prerequisite: Television Production I has none. Students taking II, III, or IV must have passed the previous sequence with a C or higher. Students will be given the opportunity to develop skills in basic video operation, scriptwriting, reporting, and post-production. In this course, teamwork, direction, and production of video projects are emphasized. Students will learn the video editing software program, Final Cut Pro X. By the end of this course, students will exhibit knowledge of all aspects of a career in the television industry. Students will achieve this by producing various segments of the student led program, GNN. This course fulfills either a Fine Arts or Technology credit for graduation.

Film

Grade Levels: 9-12

Prerequisite: None

This course is designed to provide students with the foundational elements of cinema including story structure, character, conflict, and dialogue. While exploring technical camera and editing work, students will learn to script and storyboard different movie genres. The history of cinema, with movies through each decade, is also examined in this course. By the end of this course, students will understand the technical language and how to identify and execute the building blocks of movie production.

Graphic Design

Grade Levels: 9-12

Prerequisite: None

This course introduces the fundamentals of two-dimensional visual communication. Students learn to analyze the designs they see all around them and apply that knowledge through projects relevant to their own interests. Image editing, digital illustration, and page layout techniques in Adobe Photoshop and additional platforms are utilized in this innovative project-based class. This course fulfills either a Fine Arts or Technology credit for graduation.

Yearbook I-IV

Grade Levels: 9-12

Prerequisite: None

This course provides students the opportunity to manage all aspects of the business of creating a professionally printed publication. Using the yearbook publisher's supporting technical software, students work collaboratively on layout design, photography, copywriting, and advertising sales. This course fulfills either a Fine Arts or Technology credit for graduation.



Animation

Grade Levels: 9-12

Prerequisite: None

This course is designed to give students an overview of the principles of animation. Students will explore the elements of time and space to convey messages and meaning through type, image, video, 3D, and visual effects for the screen. Students will create animated graphics using principles of 2D and 3D design. Specific attention is given to theories and concepts of animation and motion graphics. Emphasis is placed on dynamic text animation and key frame animation using Adobe After Effects and other animation software. This course fulfills either a Fine Arts or Technology credit for graduation.

Photography

Grade Levels: 9-12

Prerequisite: None

This course will help students master the fundamentals of digital photography. Main areas of concentration will include the usage of DSLR cameras in addition to medium that students are already accustomed to, such as cellular phone cameras. With an emphasis on composition and how to use photo-editing software, students will become well-rounded and successful photographers.

Studio Art I

Grade Levels: 9-12

Prerequisite: None

Students will be introduced to the elements of art and principles of design through studio projects in 2D and 3D. Students will create a body of artwork that demonstrates art and design through craftsmanship, technique, and creativity. Students will use art history to understand different cultures through the study and analysis of art as a means of communication.

Studio Art II

Grade Levels 10-12

Prerequisite: Studio Art I

This course is for students who are prepared for more advanced conceptual visual study. Emphasis is placed on developing skill mastery in varied 2D and 3D media to produce representational, figurative, and abstract imagery. Students will be expected to apply knowledge of Art History to communicate meaning in their own artwork.



Portfolio

Grade Levels: 11-12

Prerequisite: Studio Art II or Teacher Recommendations from Photography, Graphic Design, or Film

In this self-directed course, students will develop a portfolio showing a body of their own work that visually explores a particular artistic interest. Artists may work in, but are not limited to: drawing, painting, printmaking, mixed media, photography, digital media, and emerging technologies that demonstrate understanding of design principles as applied to a 2-dimensional surface. Students display high levels of critical and conceptual thinking, research skills, and creative risk-taking.

AP Studio Art 2D Design

Grade Level: 12

Prerequisite: Portfolio or Teacher Recommendation

This course has been developed for students interested in showing artistic mastery of design. Artists may work in, but are not limited to, content in drawing, painting, printmaking, mixed media, photography, and digital media. This course is evaluated by the submission of a portfolio at the end of the school year. The portfolio is 24 pieces of art divided into three sections: quality, breadth, and concentration. Students will research formal concepts, explore creative techniques, and display conceptual thinking.

ACADEMIC ELECTIVE COURSE DESCRIPTIONS

Humanities

Grade Levels: 9-12

Prerequisite: none

This course is designed to introduce students to the major disciplines of the humanities. The first semester includes an exploration of the art, architecture, culture, theater and history of Prehistory, Mesopotamia, Ancient Egypt, Ancient Greece, Ancient Rome, Medieval, and Renaissance. The second semester will focus on the art of the Eighteenth Century through the Modern era, as well as a study of musical eras including: Baroque, Classical, Blues, Jazz, and Rock n' Roll. Students work independently and collaboratively on projects and presentations throughout the year.

AP Psychology

Grade Levels: 10-12

Prerequisite: None

This course is designed to be the equivalent of a freshman college survey course in psychology. Students will be introduced to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. At the end of this course, students will take the AP Psychology Exam.

Cultural Anthropology

Grade Levels: 11-12

Prerequisite: None

This semester course provides a comparative study of cultures and human societies. Prior knowledge, personal experiences, firsthand observations, and writings and films made by anthropologists are analyzed and applied to course topics. This course is ideal for juniors and seniors who enjoy social sciences and want to develop their global mindset.

Sociology

Grade Levels: 11-12

Prerequisite: None

This semester course introduces students to the study of social life, social change, and the social causes and consequences of human behavior. The course can also help introduce students to the rigorous use of scientific data to study the social world. This course is ideal for juniors and seniors who wish to understand how society works.

Speech & Debate I-IV

Grade Levels: 9-12

Prerequisite: None

This course is designed for students with an interest in developing experience in public speaking through the exploration of a wide variety of speech and debate events. Events include: Student Congress, Public Forum Debate, Impromptu Speaking, Extemporaneous Speaking, Duo Interpretation, Oral Interpretation of Literature, Original Oratory and Lincoln Douglas Debate. This course will consist of lectures, discussion, individual and small group work, and presentations. Required events include participation in two forensics competitions: one in a speech event and one in a debate event. In addition, students must attend a minimum of four after school practices during the year and will be expected to volunteer at the Griffin Growl All Novice Invitational.

Model United Nations

Grade Levels: 9-12

Prerequisite: None

This course is a unique opportunity for students who are interested in current events around the globe. Students will engage in cooperative problem-solving activities dealing with issues currently being discussed by the delegates at the United Nations. The course begins with an introduction to the history and structure of the United Nations and shifts to the wide variety of issues that the UN addresses around the world. Students will develop awareness of global issues as nations attempt to address and solve them.

AP Seminar

Grade Levels: 10-11

Prerequisite: Teacher Recommendation

In this course, students develop and strengthen analytical skills as they explore current events. Students practice close reading and analysis of articles, identifying themes, and building support for arguments. Students also learn to consider issues from multiple perspectives, evaluate the strength of arguments, and make logical, fact-based decisions. AP Seminar students are assessed with two performance tasks in the second semester and an exam in May. Performance tasks consist of a team project and presentation, and an individual research-based essay and presentation.

AP Research

Grade Levels: 11- 12

Prerequisite: AP Seminar

This course allows students to design, plan, and conduct a yearlong research-based investigation on a topic of individual interest, documenting their process with a portfolio. Students use the QUEST framework as they explore issues and topics: Question and Explore; Understand and Analyze; Evaluate Multiple Perspective; Synthesize Ideas; Team, Transform, and Transmit. Students demonstrate the ability to apply scholarly understanding to real-world problems and issues by learning how to understand research methodology, employ ethical research practices, and synthesize information to build, present, and defend an argument. The course culminates with an academic paper and a presentation with an oral defense.

AP Art History

Grade Levels: 10-12

Prerequisite: Humanities or Teacher Recommendation

In this course, students will study people, culture, society, architecture, and history through the perspective of artwork. This course encompasses humanities, archaeology, psychology, art, geography, and history. Students will study art styles and subjects from different time periods and countries all over the world by examining paintings, sculptures, and buildings. Students in this course can expect to gain a unique perspective of the world on a visual journey through history by participating in a wide variety of discussions, activities, and projects.



TECHNOLOGY ELECTIVE COURSE DESCRIPTIONS

Robotics 1

Grade Levels: 9-12

Prerequisite: none

Students will learn about robotics engineering, basic computer programming skills, and key STEAM (Science, Technology, Engineering, Art, and Math) principles in this student-centered and project-based course. Major topics include project management, computational thinking, Computer Aided Design, and mechatronic principles. In the culminating unit of this course, students will demonstrate their acquired knowledge with a final project of their own design using Lego Mindstorm EV3 Kits.



Robotics 2

Grade Levels: 9-12

Prerequisite: Robotics 1

This course will build upon the key STEAM principles learned in Robotics 1 and apply them more effectively to the VEX EDR platform by competing in VEX competitions. In order to accomplish this, students will learn basic Python and C programming. Students will learn more about drafting, design, and basic circuit design. For the final project, students will design an Arduino based robot that will accomplish a specific task of the students' choosing. Students will 3D print the parts needed to complete these robots.



Computer Coding and Programming

Grade Levels: 9-12

Prerequisite: none

This course introduces students to the central ideas of computer science and programming. Students will develop the computational thinking vital for success across multiple disciplines. Through a student-centered and project-based curriculum, students will design and implement innovative solutions using an iterative process similar to what artists, writers, computer scientists, and engineers use to bring ideas to life.

AP Computer Science Principles

Grade Levels: 10-12

Prerequisite: Computer Coding and Programming, Algebra I, and Teacher Recommendation

This course is designed to be equivalent to an introductory college computing course. Students will develop computational thinking skills vital for success across all disciplines such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world. Students will be introduced to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. This course will give students the opportunity to use technology to address real-world problems and build relevant solutions. This course culminates with students completing the AP assessment.

PHYSICAL EDUCATION COURSE DESCRIPTIONS

Comprehensive Training

Grade Levels: 9-12

Prerequisite: Teacher Recommendation

This course develops and progresses the student-athlete as a whole. Muscular development, strength, flexibility, conditioning, and proper nutrition will be the focus of this course. Basic weightlifting theory and techniques will also be covered. Students will be required to participate in a comprehensive workout program and eventually develop their own program. Emphasis will be on goal specific training programs such as athletic improvement, bodybuilding, aerobic conditioning, and speed training.

Physical Education-HOPE

Grade Levels: 9-12

Prerequisite: None

In this course, students will gain understanding of the body's systems and how their choices affect overall health and fitness socially, emotionally, and physically. HOPE will address nutrition, the effects of drugs and alcohol, stress management, and basics of anatomy as it relates to sex-ed, HIV/STD prevention, and reproduction. The physical education component of HOPE will be fulfilled in the gym, on the field, and in the weight room as students learn and participate in a variety of sports and activities throughout the year.

Sports Medicine I-IV

Grade Levels: 9-12

Prerequisite: None

This course allows students to explore the career options associated with Athletic Training and Sports Medicine. Students acquire knowledge of basic anatomy, the healing of tissues, and a variety of sports and non-sports injuries. Students will also learn methods for injury prevention as well as hands-on practice with taping, wrapping, and utilizing protective equipment. Students will be on the sidelines of many Lake Mary Prep athletic events, which allows them to put classroom learning to work in a real world setting. Students will develop knowledge of medical terminology and the body's anatomy. The effects of nutrition and psychology on the recovery process in athletes is also examined.



Team Sports

Grade Levels: 9-12

Prerequisite: None

This course develops the physical skills necessary to be competent in a variety of team sports. Course topics include: offensive and defensive strategies, appropriate social behaviors within a group setting, and a general knowledge of various team sports. The integration of fitness concepts throughout the content is critical to the success of this course. Students are well-prepared for pursuing future involvement in LMP's athletic programs and lifelong physical well-being.

Weightlifting I-IV

Prerequisite: None

This course develops the physical skills necessary to be competent in many forms of movement as it relates to weight training. Students will develop an individualized program based upon their goals emphasizing muscle strength, muscle endurance, muscle size, and/or muscle flexibility. This course promotes a foundation for a lifelong, healthy lifestyle.

Grade Levels: 9-12

Yoga

Prerequisite: None

Yoga is the ideal class for students who want to develop core strength and improve their balance and flexibility. This course provides a safe environment for students to learn and practice different styles of yoga at all levels. Athletes and non-athletes alike will benefit from the stretching, balancing, and flexibility exercises that are at the core of yoga.

Grade Levels: 9-12





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