

EF Academy

Course Catalog 2026-2027

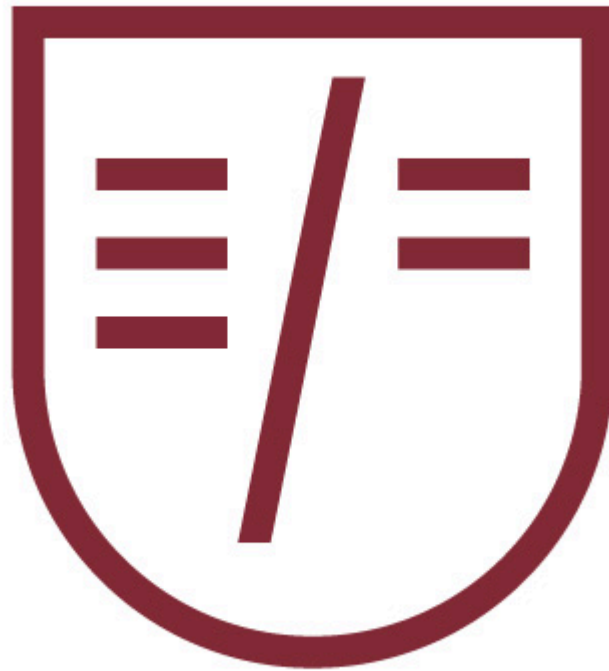


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INTRODUCTION

In EF Academy's Course Catalog, you will be introduced to the Grades 9-12 course of studies at EF Academy: International Boarding School. The course catalog is divided by academic disciplines. Within each academic discipline, you will find the prerequisites, and course overview per academic subject. The course catalog also includes information about our advisory program, which fosters social emotional and learning skills for all students.

CURRICULUM FRAMEWORK

We foster student-centered classes by teaching an inquiry-based curriculum where students explore concepts to demonstrate levels of thinking and understanding that reach beyond learning only content. Through their course of study, students learn not only to question *what* they are learning, but they learn to examine the value of learning, as well as to analyze and reflect on how--through their learning--they can make a positive and profound impact on their local, national, and global community.

EF Academy offers students three personalized pathways to reach graduation; each program has been designed to support students and ensure success in university and career.

US High School Diploma Plus Full IB Diploma

This pathway invites students to complete the full IB Diploma Program (DP). EF Academy's IB Diploma Program is a rigorous academic course of study within a broad and balanced curriculum. The program helps students to flourish physically, intellectually, emotionally, and ethically by challenging them to apply their knowledge and skills in the real-world. The program pushes students outside of their comfort zones and challenges them to think differently, to broaden their perspectives, and to take risks. The Diploma Programme (DP) curriculum is made up of six subject groups and the DP core, comprising theory of knowledge (TOK), creativity, activity, service (CAS), and the extended essay. Through the Diploma Programme (DP) core, students reflect on the nature of knowledge, complete independent research, and undertake a project that often involves community service.

US High School Diploma Plus IB Course Certificates and AP Courses

This pathway is a unique combination of our US High School curriculum and the IB Diploma Program and / or Advanced Placement (AP) courses that allows students to pursue advanced coursework in one or more subjects leading to IB and / or AP Certificates. Certificate candidates take courses in their areas of academic interest and, upon completion of these classes, sit for IB or AP examinations. Candidates will receive an IB and / or AP Certificates for each course successfully completed, as well as the US High School Diploma.

US High School Diploma

The USHS pathway is a broad curriculum for those who have not yet decided on a specific major or career path. The US High School Diploma program has been created for students focusing on developing English proficiency, passing courses with a high GPA, and preparing for the TOEFL/IELTS exams and the SAT.

ARTS

MUSIC PERFORMANCE - BAND: GRADES 9 - 12

This course focuses on developing students' musical abilities and interests through playing in a contemporary band ensemble. Students will improve their instrument skills and develop musicianship from playing together as a group, and through presenting live performances. They will explore a variety of musical styles and genres - from blues to rock and pop to contemporary and original music. The curriculum will include exercises designed to strengthen sight-reading skills, rhythmic interpretation, expression, musical coordination, and concepts of melody and harmony. In addition, students will explore the fundamentals of music theory and terminology, composition, improvisation and arranging.

Prerequisites: Prior music courses or experience at EF or outside EF.

DRAMA: GRADES 9 - 12

COURSE DESCRIPTION:

This course is offered in Grades 9, 10, 11, and 12. The Drama class focuses on the multiple areas of theatrical performance and production. Students will learn about performance, staging, devising, directing, designing, technical theater and the elements of theatrical visual arts. The course will also focus on improving students' proficiency and self-expression through cooperative and independent activities. Students will learn and use proper diction, vocal delivery and nonverbal language in a safe and supportive learning environment.

MUSIC 1: GRADES 9 - 12

COURSE DESCRIPTION:

This introductory music course is for students with little to no musical background, but who have a desire to learn music. The only prerequisite is an interest in music and a desire to explore the rudiments of music including singing, piano and guitar, music history, music theory, music analysis, ethnic music of the world and composition. The activities of the class are divided into four major categories: 1. Introduction to music theory, terminology and music history, 2. learning about and practical playing various musical instruments, 3. learning basic compositional techniques, 4. ensemble and group playing.

MUSIC 2: GRADES 9 - 12

COURSE DESCRIPTION:

This music course builds on the skills learned in Music 1. Students will continue to develop their understanding of and facility with music theory, terminology and music history, learning about and practical playing various musical instruments, learning basic compositional techniques, and ensemble and group playing.

STUDIO ART: GRADES 9 - 12

COURSE DESCRIPTION:

Studio Art builds on the skills learned and practiced in Foundations of Art. The students will continue to examine the elements and principles of art and design as they relate both two-dimensionally and three-dimensionally in the visual arts. Using a broad variety of media involved in the processes of drawing, painting, printmaking, and sculpting/constructing, an emphasis will be on learning design concepts and the creation of artwork. Opportunities for personal expression, innovation, and creative problem-solving will be provided in this course. Visualization and conceptual thinking skills will be additionally strengthened with the integration of art history and digital photography.

IB VISUAL ARTS SL/HL

COURSE DESCRIPTION:

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

IB FILM SL/HL

COURSE DESCRIPTION:

Through the study of selected films, students explore aspects of filmmaking, including film history, theory and production. The course focuses on developing critical thinking through analytical study, providing an understanding for a wide range of perspectives, representing international points of view. Excerpts from texts such as *Master Shots* (Kenworthy) & *The Art of Watching Film* (Petri) will be used in support. The formal assessment will be based on three basic components for SL and four components for HL. These include the Textual Analysis (in-depth analysis of a selected film), the Comparative Study (a video project comparing two films through theory), the Film Portfolio (production highlights from the two years) and for HL, the Collaborative Film project (a 7-minute film and reflection). Weekly assignments are primarily analyses of films along with critical evaluations of student film productions from a specific point of view.

ENGLISH

ENGLISH 9 / 10

Students with a CEFR of B2+ in Grade 9 will be placed in this course.

COURSE DESCRIPTION:

Throughout the course, students will read a variety of literary works (drama, poetry and prose) and non-literary works from diverse writers, some of whom are American, European, African, or Asian. Students will participate in several independent and collaborative projects, such as performing scenes, writing discursive essays and narrative essays, creating imaginative writing, and constructing projects based on the ideas and concepts studied in class. Students will also participate in several student-led Harkness discussions about the texts and material studied in and out of class. In Harkness-style discussions, students debate issues and share ideas. Students will have an opportunity to express their points of view and develop their critical and creative thinking skills.

ENGLISH 11

COURSE DESCRIPTION:

English 11 is a comprehensive course designed to develop students' skills in literary analysis, critical thinking, research, and writing. Through the study of both fiction and nonfiction texts—including novels, short stories, essays, memoirs, speeches, and articles—students will explore a range of themes, literary devices, and rhetorical strategies. Emphasis will be placed on analyzing how authors craft meaning and how literature reflects cultural and historical contexts.

Students will practice both creative and critical writing, engaging in narrative, analytical, persuasive, and reflective forms. The course will also focus on building strong research skills, including how to locate credible sources, integrate evidence effectively, and properly cite using MLA format.

By the end of the course, students will be able to read closely, think deeply, write effectively, and communicate their ideas with clarity and purpose. This class prepares students for the demands of college-level reading and writing while encouraging a lifelong appreciation of literature and inquiry.

ENGLISH 12

COURSE DESCRIPTION:

English 12 is a comprehensive course designed to develop students' skills in literary analysis, critical thinking, research, and writing. Through the study of both fiction and nonfiction

texts—including novels, short stories, essays, memoirs, speeches, and articles—students will explore a range of themes, literary devices, and rhetorical strategies. Emphasis will be placed on analyzing how authors craft meaning and how literature reflects cultural and historical contexts.

Students will practice both creative and critical writing, engaging in narrative, analytical, persuasive, and reflective forms. The course will also focus on building strong research skills, including how to locate credible sources, integrate evidence effectively, and properly cite using MLA format.

By the end of the course, students will be able to read closely, think deeply, write effectively, and communicate their ideas with clarity and purpose. This class prepares students for the demands of college-level reading and writing while encouraging a lifelong appreciation of literature and inquiry.

AP ENGLISH LANGUAGE AND COMPOSITION: GRADE 11 or 12

PREREQUISITE: Students with a CEFR of C1+ and be in grade 11 or 12 to take this English course.

COURSE DESCRIPTION:

The one year AP Language and Composition course offers students a comprehensive exploration of rhetoric and language usage at an advanced level. Through a dynamic curriculum, students will enhance their critical reading and writing skills, delving into various genres and rhetorical strategies. The course places a strong emphasis on developing students' ability to analyze and interpret complex texts, as well as to construct effective and persuasive arguments. With a focus on honing written and verbal communication, students will engage in challenging tasks that require them to synthesize information, evaluate perspectives, and articulate their ideas with precision. This course not only prepares students for success in college but also equips them with the essential skills to navigate the complexities of language and rhetoric in the broader world.

IB ENGLISH LANGUAGE AND LITERATURE SL/HL

PREREQUISITE: Students must have a CEFR of C1+ to place into this English Language A course.

COURSE DESCRIPTION:

In this course, students will study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture. Approaches to study in the course are meant to be wide-ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

ENGLISH AS AN ADDITIONAL LANGUAGE

EAL SKILLS: GRADES 9-10

Grade 9 - for students with a CEFR level of A2/B1

Grade 10 - for students with a CEFR level of high A2/B1

COURSE DESCRIPTION:

Our EAL Skills courses center on cultivating English language proficiency across various domains: reading, writing, speaking, listening, and language mechanics. Participants will gain an understanding of grammatical structures for both informal and formal communication, while building academic vocabulary essential for success in diverse disciplines. The curriculum includes instruction on conducting research projects, crafting academic essays, and delivering formal presentations. Students develop an awareness of language as a tool for enhancing their communication skills.

EAL LANGUAGE & LITERATURE: GRADES 9 - 10

Language & Literature 9 - All EAL 9 students will take this course

Language & Literature 10 - All EAL 10 students will take this course

COURSE DESCRIPTION:

Our EAL Language & Literature courses center on delving into theme-based topics and concepts, utilizing a rich array of print and media sources, encompassing both literary and non-literary texts. Beyond mere comprehension, students will fine-tune their reading skills, enhancing their ability to critically analyze and evaluate diverse texts. Exploring various genres and styles, students will also expand their vocabulary. Writing exercises tailored for diverse audiences and purposes will further develop organizational skills, word choice, voice, and fluency, while reinforcing proper English language conventions. The overarching objective is to instill a genuine passion for both reading and writing.

EAL SUPPORT: GRADES 9-12

PREREQUISITE: approval from EAL HOD

COURSE DESCRIPTION:

This course is tailored to assist students with lower English proficiency in core subjects such as math, science, and humanities. In our commitment to fostering an inclusive environment, we recognize that as students progress in English acquisition, they may still benefit from additional support. During EAL Support, students engage in individual, small group, and one-on-one sessions with an EAL Specialist, focusing on coursework from their core classes. The emphasis lies on developing organizational skills, expanding academic vocabulary, and providing writing

support. EAL Specialists collaborate with content teachers to ensure that our EAL students have equal access to the same curriculum as their non-EAL peers.

IB ENGLISH B HL Year 2 Only (This course will be phased out after the 2026-2027 academic year)

PREREQUISITE: Students must have a CEFR of a B2 to place into IB English B HL.

COURSE DESCRIPTION:

This 2-year language acquisition course focuses on developing English language skills, as well as supporting critical and creative thinking. Students will explore and respond to a variety of literary works, improve English vocabulary and grammar, and adopt the IB learner profile traits. In English B, students will learn and use a wide range of reading and writing strategies. We will also focus on strengthening communication and listening skills through speaking and listening activities and projects. This is primarily a student-centered course, so students are expected to participate in classroom discussions, as well as independent and collaborative assignments. In addition to inspiring you to become lifelong learners, the IBDP English B program is designed to prepare you for the IB English B examination. By constantly engaging in valuable and challenging learning experiences, students will not only be preparing for the IB examination, but also for the rigorous demands of a university, as well as future careers.

FOUNDATIONS FOR LEARNING

FOUNDATIONS FOR LEARNING: GRADES 9-12

COURSE DESCRIPTION:

This course is designed to equip students with the essential skills that underpin academic success and personal well-being. Grounded in current research on adolescent brain development and learning science, Foundations for Learning focuses on four interconnected areas: executive function skills (organization, time management, planning, and self-monitoring), social-emotional learning (self-awareness, emotional regulation, and relationship and social skills), mindfulness practices (attention training and stress management), and growth mindset development (understanding brain plasticity and embracing challenges as opportunities for growth). Through a combination of direct instruction, guided practice, collaborative activities, and reflective exercises, students will build a personalized toolkit of strategies they can apply across all academic subjects and life contexts. Students will engage in individual reflection, small-group problem-solving, and peer coaching sessions. The Director of Learning Support will collaborate with content-area teachers to ensure relevant skill transfer and reinforce strategies throughout the students' academic programs, empowering all learners to reach their full potential.

HUMANITIES

SOCIAL STUDIES: ANCIENT CIVILIZATIONS (for students enrolled in EAL 9)

COURSE DESCRIPTION:

Ancient Civilizations is a US high school humanities course designed in collaboration with the EAL department for English learners at the upper-beginner and lower-intermediate levels. Students will engage with rich content about the development of early humans, the Agricultural Revolution, and civilizations in Mesopotamia, Africa, India, China, and the Mediterranean. Students will develop skills in reading, writing, speaking, and listening in a supportive environment that is tailored to meet their individual needs, while challenging them to expand their usage of academic English.

SOCIAL STUDIES: US HISTORY I (GRADES 9-10/EAL 10)

PREREQUISITE: Current enrollment in English 9/10

COURSE DESCRIPTION:

US History is a US High School humanities course designed for intermediate and advanced English language learners. The course focuses on significant social, historical, geographical and cultural topics. Students study the history of the United States from the arrival of the first humans in North America to the American Civil War. The course requires students to engage with and evaluate a variety of sources to deepen their understanding of the course content. Throughout the course students will develop their skills in reading, analyzing, writing about, and discussing different types of historical documents and content.

SOCIAL STUDIES: US HISTORY II

COURSE DESCRIPTION:

This course will focus on U.S. history after the American Civil War (1865 to present). Students will use both primary and secondary sources to understand multiple perspectives on and interpretations of various issues and form their own conclusions. They will apply this knowledge of the past to their understanding of the United States today. The purpose of this class is to give students a foundation of U.S. history which they can use to better connect with and comprehend the country in which they are living. In doing so, students will also explore the United States within a global context, examining the impact of international movements and events on the U.S. and vice versa. This class is also designed to give students the skills to think critically about both the past and the present, preparing them to interact with the broader world and continue deeper studies of the social sciences in college.

GLOBAL PERSPECTIVES: GRADES 9&10

PREREQUISITE: Must have a CEFR of C1+ and be in Grade 10.

COURSE DESCRIPTION:

Throughout the course, students will develop an intercultural understanding and explore a variety of global issues from personal, local, national and global perspectives. Students are encouraged to reflect on how key global issues impact their lives as well as the lives of others in today's world. Students will study a range of topics, including language & communication, conflict & peace, belief systems, tradition, culture and identity, as well as other topics that have a global significance. Students will develop and use interdisciplinary skills, such as planning, synthesis, research, evaluation, collaboration, communication and critical thinking. By the end of the academic year, students will complete two individual research projects based on two topics of their choice, a group research project where students collaborate in the research process and reflect on what they learned about cross-cultural collaboration, and respond to essential questions based on their knowledge of global issues and perspectives.

BUSINESS STUDIES**COURSE DESCRIPTION:**

This course offers students a dynamic introduction to the core principles of the business world, with a focus on three key areas: business ethics, marketing, and entrepreneurship. Students will examine real-world case studies and current events to understand ethical decision-making in business, exploring topics such as corporate responsibility, fair trade, sustainability, and ethical leadership.

In the marketing unit, students will learn how businesses identify and target audiences, build brands, and develop effective strategies across traditional and digital platforms. They will analyze successful marketing campaigns and create their own marketing plans for products or services.

The entrepreneurship component challenges students to think creatively and strategically as they develop their own business ideas. Students will learn the fundamentals of launching and managing a business, including business planning, budgeting, and risk assessment.

Throughout the course, students will apply problem-solving, collaboration, and communication skills through hands-on projects and presentations. This course prepares students to think critically about the role of business in society and equips them with practical tools for future academic or career pursuits in the business field.

AP BUSINESS WITH PERSONAL FINANCE**COURSE DESCRIPTION:**

AP Business with Personal Finance is a yearlong high school business and personal finance course that aligns closely with a college-level introduction to business course. Students explore the business disciplines of entrepreneurship, marketing, finance, accounting, and management through real-world business applications, case studies, and project based learning. In addition,

students learn and apply all the National Standards for Personal Financial Education created by the Council for Economic Education and the Jump\$tart Coalition for Personal Financial Literacy.

The AP Business with Personal Finance course framework includes two essential components—business skills and professional and leadership skills—that are critical to the deep understanding and application of business and personal finance content. Students should develop and use these skills throughout the course.

IB HISTORY OF THE AMERICAS SL/HL

COURSE DESCRIPTION:

Throughout the DP history course, students have the opportunity to explore historical events that have played a key role in shaping the world today, deepening their understanding of the complex and interconnected nature of past and present events. For example, in **year 1** of the class, at an SL level, students will explore the causes and effects of World War I. They will then venture into depth studies on Japan, Italy and Germany during the interwar years. From there we will do a deeper analysis of NAZI Germany and the Authoritarian rise of Hitler. We will end year 1 with the causes and practices of the Second World War.

In **Year 2** of the class, we will examine the Superpower tensions that existed during the Cold War. We will examine the intricacies of this conflict and how it not only affected the USA and USSR, but also played a major part in the development of countries like Germany, Korea, Vietnam, Egypt and Cuba. After giving an overview of Cuba we will take a deeper look into the Rise of Fidel Castro and his authoritarian rule.

At the **Higher level** students will explore 4 additional units from the lens of: **History of the Americas**. They will explore The Great Depression, The Second World War, Civil Rights Movements and end the course with the Cold War.

IB ECONOMICS SL/HL

COURSE DESCRIPTION:

Economics is the study of how individuals, businesses, and societies allocate their scarce resources in order to satisfy people's unlimited wants. Economics uses theoretical models of behavior to predict responses to market and policy changes alongside statistical analysis. This two year course focuses on developing students' ability to better understand current events by looking at what's happening in the world around them through an economic lens. In addition to teaching economic terms, diagrams, and theory, the course also heavily focuses on teaching students to write formal pieces of written analysis and evaluation.

Year one covers **microeconomics** and the first half of **macroeconomics**, up through assessing the causes and effects of economic growth, inflation, unemployment and inequality. This prepares students for further IB study in year two, which focuses on applying foundational concepts to study aggregate demand and aggregate supply-side intervention, as well as the role of international trade and economic development in the **global economy**. Students submit their

final internal assessment portfolio during the second year, and the course culminates with end-of-the-year external assessment exams.

IB GLOBAL POLITICS

COURSE DESCRIPTION:

The 21st century is characterized by rapid change and increasing interconnectedness, impacting individuals and societies in unprecedented ways and creating complex global political challenges. Global politics is an exciting, dynamic subject that draws on a variety of disciplines in the social sciences and humanities, reflecting the complex nature of many contemporary political issues. The study of global politics enables students to critically engage with different and new perspectives and approaches to politics in order to comprehend the challenges of the changing world and become aware of their role in it as active global citizens.

The Diploma Programme Global Politics course explores fundamental political concepts such as power, equality, sustainability and peace in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives. The course helps students to understand abstract political concepts by grounding them in real-world examples and case studies. It also invites comparison between such examples and case studies to ensure a wider and transnational perspective.

AP US HISTORY

COURSE DESCRIPTION:

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

AP PSYCHOLOGY

COURSE DESCRIPTION:

AP Psychology is a college level course designed to introduce students to the systematic and scientific study of human behavior and mental processes. Students will learn about psychologists and studies that have shaped the field as well as explore and apply psychological theories, key concepts, and phenomena of topics such as the biological basis of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, psychological disorders and social psychology. Throughout the course, students will apply psychological research methods, including ethical considerations, as they use

scientific methods, evaluate claims and evidence and effectively communicate ideas. This course is the equivalent of Introduction to Psychology (Psychology 101) taken at university.

*Modified from the College Board, AP Psychology Course Description

THEORY OF KNOWLEDGE Y1 & Y2 (FOR ALL IB DIPLOMA CANDIDATES)

COURSE LENGTH: Y1 All Year / Y2 Semester 1

COURSE DESCRIPTION:

Theory of Knowledge (TOK) is a course about critical thinking and inquiring into the process of knowing; ultimately, it's about knowing about knowing. Students will examine how we know what we claim to know. The task of TOK is to emphasize connections between areas of knowledge (AOKs) and link them to the knower in such a way that the knower can become more aware of the origins of his or her own perspectives and those of the various groups whose knowledge he or she shares. Some of the topics include Knowledge & the Knower, Knowledge and Technology, Knowledge and Politics, and specific focus on Areas of Knowledge (math, history, arts, natural science, and human science). This course also incorporates essential research and writing skills to help students develop their IB Extended Essays, as well as the development of essential academic skills based on the IB Learner Profile.

MATHEMATICS

PRE-ALGEBRA

PREREQUISITE: Students enroll in the course based on their score from the math placement guide.

COURSE DESCRIPTION:

This is an introductory level course designed for students who need to improve their basic skills in mathematics. In this course, students will learn about and explore topics including integers, order of operations, algebraic expressions, one and two-step equations, proportions, percents, probability, geometry, and linear equations. Upon successful completion of the Pre-Algebra course, students will advance to Algebra 1 & Geometry.

ALGEBRA 1 & GEOMETRY

PREREQUISITE: Students enroll in the course based on their score from the math placement guide or upon successful completion of Pre-Algebra.

COURSE DESCRIPTION:

In this course, students will learn fundamental algebraic skills such as performing operations involving algebraic expressions, expansion and factorization, solving linear equations, graphing linear and quadratic functions. In addition to the algebraic skills, students will explore the geometric topics of right triangles, similarity of geometric figures, surface area, volume, and properties of circles. Upon successful completion of the Pre-Algebra course, students will advance to Algebra 2 & Trigonometry..

ALGEBRA 2 & TRIGONOMETRY

PREREQUISITE: Students enroll in the course based on their score from the math placement guide or upon successful completion of Algebra 1 & Geometry or equivalent..

COURSE DESCRIPTION:

This course reviews and deepens understanding of Algebra 1 concepts and covers the more advanced topics of Algebra 2 and Trigonometry. Topics included are relations and functions, quadratic equations, exponents and radicals, complex numbers, trigonometry, exponential and logarithmic functions and some geometry. An emphasis is placed on mathematical modeling and applying skills to solve word problems.

PRE- CALCULUS

PREREQUISITE: Students enroll in the course based on their score from the math placement guide or upon successful completion of Algebra 2 & Trigonometry or equivalent.

COURSE DESCRIPTION:

Pre-Calculus weaves together previous study of algebra, geometry, and mathematical functions into a preparatory course for calculus. The course focuses on mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. Topics include fundamental concepts of Algebra, functions and graphs, polynomials and rational functions, exponential and logarithmic functions, trigonometric functions, analytic trigonometry, topics in trigonometry, systems of equations and inequalities, matrices and determinants, conic sections and analytic geometry, sequences, induction, probability, and an introduction to Calculus. Proficiency in the use of scientific and graphing calculators is important for achieving success in this course.

FINITE MATHEMATICS: GRADE 12**COURSE DESCRIPTION**

Finite Mathematics explores topics that are not often seen in high school Mathematics courses, but are very helpful for developing practical problem solving and logical reasoning. Students gain experience in matrix algebra, graph theory, game theory, logic, and financial mathematics before moving into our final unit of Statistics. This course is for non-IB seniors.

AP CALCULUS AB

PREREQUISITE: Successful completion of Pre-Calculus or equivalent

COURSE DESCRIPTION

According to the College Board, AP Calculus AB is designed to be the equivalent of a first semester college calculus course devoted to topics in differential and integral calculus. The courses feature a multi representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. At the end of the course, students will sit for the AP Calculus AB exam.

IB MATHEMATICS: APPLICATIONS & INTERPRETATION SL

PREREQUISITE: Students enroll in the course based on their score from the math placement guide or upon successful completion of Algebra 2 & Trigonometry or equivalent.

COURSE DESCRIPTION:

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics. The course makes extensive

use of technology to allow students to explore and construct mathematical models. Mathematics: applications and interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.

IB MATHEMATICS: ANALYSIS & APPROACHES SL

PREREQUISITE: Students enroll in the course based on their score from the math placement guide or upon successful completion of Algebra 2 & Trigonometry or equivalent.

COURSE DESCRIPTION

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Students who choose Mathematics: Analysis and Approaches at SL or HL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns.

IB MATHEMATICS: ANALYSIS & APPROACHES HL

PREREQUISITE: Students enroll in the course based on their score from the math placement guide or upon successful completion of Pre-Calculus or equivalent.

COURSE DESCRIPTION

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Students who wish to take Mathematics: Analysis and Approaches at a higher level must have very strong algebraic skills and the ability to understand simple proofs. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

SCIENCE

COMBINED SCIENCE: GRADE 9 & 10

PREREQUISITE: Y1 is designed for EAL 9 students/Pre-Algebra (min req)

COURSE DESCRIPTION:

Combined Science is an introductory science course geared towards EAL learners. The course focuses on building essential knowledge of the basic concepts of Matter and Energy, developing key to understandings for further study of all three disciplines: physics, chemistry and biology. The study of matter includes the structure of the atom, phases of matter and phase changes. The study of energy includes defining energy, work and force, forms of energy, conservation of energy, energy transfers and alternative energy choices. Throughout the course, science specific vocabulary is emphasized along with the process of experimental design. MYP standards are the basis for assessment in the course.

BIOLOGY: GRADES: 9 - 12

PREREQUISITE: English 9/10/EAL 10 (min req); International Math 1 (min req)

COURSE DESCRIPTION:

This Biology course is designed to give students the opportunity to gain an overall understanding of the diversity and complexity of life, enabling them to learn to appreciate its value. Biology is related to many aspects of everyday life, whether we are talking about processes in the human body, new discoveries in medicine, biotechnologies or the changing environment. The course focuses on the life processes that occur within the cell, the anatomy (the structure) and physiology (the processes) of complex multicellular organisms, and the ways by which life forms reproduce, develop, and adapt to conditions in their environment. A great emphasis is put on the structure and the processes in the human body, healthy lifestyle and diseases. The students will have a chance to learn about the past and also recent discoveries and how they affect their lives. The course is practical-oriented and helps to develop skills which are important not just for scientific experiments but useful in everyday life, like an ability to plan work, communicate ideas, and evaluate decisions.

CHEMISTRY: GRADE 9 - 12

PREREQUISITE: English 9/10 (min req); International Math 1 (min req)

COURSE DESCRIPTION:

Students will work toward a comprehensive understanding of chemistry. This foundation will include the central concepts of atomic structure, periodicity, chemical bonding, reaction

stoichiometry, states of matter, reaction kinetics, chemical equilibrium, and electrochemistry. In addition, the Chemistry curriculum includes enriched topics of organic, biological, environmental, industrial and analytical chemistry not typically covered in a first year chemistry course. Students will develop sophisticated problem solving strategies and fundamental laboratory skills. Emphasis will be placed upon independent investigation and thoughtful scientific research.

PHYSICAL EDUCATION 1 AND PHYSICAL EDUCATION 2

COURSE DESCRIPTION:

PHYSICAL EDUCATION 1

P.E. 1 introduces students to the foundations of physical fitness, emphasizing the importance of lifelong health and wellness. Students will participate in a variety of team and individual sports to develop coordination, teamwork, and sportsmanship. In addition to formal sports, students will explore personal fitness activities such as strength training, cardio, flexibility, and endurance exercises. The course also introduces basic orienteering skills, encouraging outdoor exploration and navigation. Health and wellness topics—including the principles of nutrition, goal-setting, and the benefits of an active lifestyle—are integrated into the curriculum to help students make informed choices about their physical and mental well-being.

COURSE DESCRIPTION:

PHYSICAL EDUCATION 2

Building on the foundation of P.E. 1, P.E. 2 deepens students' understanding of physical fitness, training techniques, and personal health. Students will refine their skills in a variety of sports and take on more advanced personal fitness challenges, including individualized workout planning and goal tracking. Orienteering activities are expanded to promote strategic thinking, map-reading, and outdoor leadership. Health and wellness education continues with a focus on nutrition for performance, stress management, and developing healthy lifelong habits. This course emphasizes personal responsibility, self-motivation, and the value of fitness as part of a balanced lifestyle.

Both courses promote active participation, personal growth, and a holistic approach to wellness that students can carry with them beyond the classroom.

IB BIOLOGY SL

COURSE DESCRIPTION:

The IB Diploma Program biology standard level course covers the relationship of structure and function at all levels of complexity. Students learn about cell theory, the chemistry of living things, plant structure and growth, and the difference between genes and alleles, among many other topics, to further their understanding of and learning about biology. Throughout this challenging course, students become aware of how scientists work and communicate with each other.

Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context.

IB BIOLOGY HL

COURSE DESCRIPTION:

The IB Diploma Programme biology higher level course covers the relationship of structure and function at all levels of complexity. Students learn about cell theory, the chemistry of living things, plant science and genetics, among many other topics to further their understanding of and learning about biology. Throughout this challenging course, students become aware of how scientists work and communicate with each other. Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context.

AP BIOLOGY

COURSE DESCRIPTION:

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore topics like evolution, energetics, information storage and transfer, and system interactions.

The framework specifies what students must know, be able to do, and understand, with a focus on the big ideas that encompass core principles, theories, and processes of the discipline. The framework also encourages instruction that prepares students for advanced work in STEM majors.

The AP Biology framework included in the course and exam description outlines distinct skills, called science practices, that students should practice throughout the year—skills that will help them learn to think and act like biologists.

IB PHYSICS SL

COURSE DESCRIPTION:

The Physics SL course is possible with no prior knowledge but requires a strong background in Mathematics. It is an advantage to have 1/2 years of previous Physics classes to prepare students for the course. Most of the fundamental aspects of Physics are covered starting with Newton's Laws and working through Thermodynamics, Electricity, Waves, Modern Physics and the physics of climate change. Students also study an option topic in more depth. This will be either Relativity or Astrophysics, at the teacher's discretion.

IB PHYSICS HL

COURSE DESCRIPTION:

The Physics Higher Level course exposes students to this most fundamental experimental science, which seeks to explain the universe itself from the very smallest particles to the vast

distances between galaxies. Students develop traditional practical skills and techniques and increase facility in the use of mathematics, the language of physics. They also develop interpersonal skills as well as information and communication technology skills, which are essential in modern scientific endeavors and are important life-enhancing, transferable skills in their own right. Students, moreover, study the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists. Throughout this challenging course, students become aware of how scientists work and communicate with each other. Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context.

AP PHYSICS

COURSE DESCRIPTION:

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, and conservation.

This course requires that twenty-five percent of instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to demonstrate the foundational physics principles and apply the science practices.

IB CHEMISTRY SL

COURSE DESCRIPTION:

This course offers an in depth look at many areas of chemistry, including inorganic, organic, electrochemistry, energetics, kinetics, equilibrium and biochemistry, covered during 110 hours of theoretical studies in 2 years. Students will have the opportunity to learn basic chemistry and build on those concepts throughout the course to explain more complicated concepts.

As part of the IB Chemistry program, students will participate in laboratory experimental work in various areas of the curriculum. HL students must complete 40 hours of lab studies. Evidence of this laboratory work is sent to the IB examiners in the second year of the course. Students will also be writing a formal lab report that will be used to determine the portion of their IB grade for this course.

All students involved in IB Sciences will participate in the Group IV project. This project allows students to investigate scientific problems from many scientific perspectives and address the local and global significance of them.

IB CHEMISTRY HL

COURSE DESCRIPTION:

This course offers an in depth look at many areas of chemistry, including inorganic, organic, electrochemistry, energetics, kinetics, equilibrium and biochemistry, covered during 180 hours of theoretical studies in 2 years. Students will have the opportunity to learn basic chemistry and build on those concepts throughout the course to explain more complicated concepts.

As part of the IB Chemistry program, students will participate in laboratory experimental work in various areas of the curriculum. HL students must complete 60 hours of lab studies. Evidence of this laboratory work is sent to the IB examiners in the second year of the course. Students will also be writing a formal lab report that will be used to determine the portion of their IB grade for this course.

All students involved in IB Sciences will participate in the Group IV project. This project allows students to investigate scientific problems from many scientific perspectives and address the local and global significance of them.

MARINE BIOLOGY

COURSE DESCRIPTION:

The study of marine science lends itself very well to hands-on work and consequently will be carried out in the estuaries of the Hudson River and Jamaica Bay. There will be many opportunities for practical work both in the field and in the laboratory. In addition, physical oceanography lends itself to the use of ocean modeling and analysis of satellite imagery which may be studied anywhere. In all practical work, students are encouraged to develop an appreciation for the question, How do we know what is true? This question invites an essential of experimental sciences, verification. The technologies used in marine science make these questions especially pertinent.

WORLD LANGUAGES

IB CHINESE LANGUAGE AND LITERATURE SL/HL

PREREQUISITE: Students must have a CEFR of C1+ in Chinese Language

COURSE DESCRIPTION:

In this course, students will study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture. Approaches to study in the course are meant to be wide-ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

IB GERMAN LANGUAGE AND LITERATURE SL/HL

COURSE LENGTH: All-Year

PREREQUISITE: Students must have a CEFR of C1+ in German Language

COURSE DESCRIPTION:

In this course, students will study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture. Approaches to study in the course are meant to be wide-ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

IB SPANISH LANGUAGE AND LITERATURE SL/HL

PREREQUISITE: Students must have a CEFR of C1+ in Spanish Language

COURSE DESCRIPTION:

In this course, students will study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture. Approaches to study in the course are meant to be wide-ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

IB SELF-TAUGHT LITERATURE SL

PREREQUISITE: Students must have a tutor who is proficient in their first and best language. This person will help in areas where your Self-Taught Literature supervisor may not be able. The tutor will particularly provide feedback for the IB assessment components.

COURSE DESCRIPTION:

The IB Diploma Program Literature A Self-Taught Standard Level course offers students the opportunity to study the literature of a language that is not offered at the school as a taught subject. A high level of autonomy is expected from students taking this course. The course is built on the notion of conceptual learning. This means that the course is organized around concepts, or big ideas, which makes it easier to form connections between subjects and between parts of a course. Concepts are important as they are applicable and transferable to real-life situations. In this course, the central concepts are culture, communication, transformation, perspective, creativity, representation and identity.

IB SPANISH B SL/HL

PREREQUISITE: Students must have a CEFR of a B1 in the Spanish language

COURSE DESCRIPTION:

This is an additional language-learning course designed for students with some command of the Spanish language. It may be studied at either SL or HL. The main focus of the course is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and should be related to the culture(s) concerned. The chosen material should enable students to develop mastery of language skills and intercultural understanding. The themes explored are Identities, Experiences, Human Ingenuity, Social Organization and Sharing the Planet.

IB CHINESE AB INITIO SL

COURSE DESCRIPTION:

The IB Diploma Program Language Ab Initio course is a language acquisition course designed for students with no prior experience of the Chinese language or for those with very limited previous exposure. It is only offered at the Standard Level. The themes explored are Identities, Experiences, Human Ingenuity, Social Organization and Sharing the Planet. Each theme has a list of topics that provide the students with opportunities to practice and explore the Chinese language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations.

IB SPANISH AB INITIO SL**COURSE DESCRIPTION:**

The IB Diploma Program Language Ab Initio course is a language acquisition course designed for students with no prior experience of the Spanish language or for those with very limited previous exposure. It is only offered at the Standard Level. The themes explored are Identities, Experiences, Human Ingenuity, Social Organization and Sharing the Planet. Each theme has a list of topics that provide the students with opportunities to practice and explore the Spanish language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations.

USHS LANGUAGE ACQUISITION COURSES: GRADES 9 - 12

- **SPANISH: Beginner, Intermediate, Accelerated & Advanced Levels**
- **CHINESE: Beginner, Intermediate**

PREREQUISITE:

Students with a CEFR of A1/A2 on the chosen language will be placed in the intermediate level
Students with a CERF of a B1+ will be placed in the advanced level

COURSE DESCRIPTION:

These are US High School language acquisition courses, which are designed for students who want to learn a language other than English or their native language. The language acquisition courses are divided into levels. Students in the beginner level will build a foundation for further study in the selected language acquisition. For the intermediate level, students must have studied the language in the previous year(s), or demonstrate some proficiency in the language with a CEFR of A1/A2. Students with a CERF of a B1+ will be placed in the advanced level. Students will learn how to communicate in the target language while also learning about the cultures where the language is used. Throughout the courses, students will demonstrate their understanding of the language by reading, writing, listening and speaking in the foreign language. Students will also learn how to communicate in real-life scenarios.

ACADEMIC & ENGLISH ACCELERATOR PROGRAM (AEAP)

EAL SPEAKING / LISTENING 1

This course develops students' oral communication and listening comprehension skills for academic and social contexts. Students will practice understanding main ideas and details in short lectures, discussions, and multimedia materials. Activities will focus on pronunciation, intonation, and fluency, as well as listening strategies for note-taking and comprehension. Students will participate in structured conversations, role-plays, and presentations to gain confidence in expressing ideas clearly and appropriately in English.

EAL READING / WRITING 1

This course strengthens reading comprehension and academic writing skills for multilingual learners. Students will read a range of adapted and short authentic texts, identifying main ideas, supporting details, and text structures. Writing instruction will focus on paragraph development, organization, and basic grammar structures. Students will practice summarizing, paraphrasing, and responding to texts through guided writing tasks, building toward short, coherent compositions suitable for academic settings.

EAL ALL SKILLS 1

An integrated English course designed to develop proficiency in speaking, listening, reading, and writing simultaneously. Students will work with thematic units that combine receptive and productive skills, incorporating academic vocabulary and grammar in context. Through collaborative projects, readings, and discussions, learners will develop the ability to communicate effectively across all language domains while applying strategies for comprehension, organization, and self-expression in English.

RESEARCH & ACADEMIC SKILLS 1

This course equips students with essential skills for success in high school and beyond. Topics include effective note-taking, summarizing and paraphrasing, basic research methods, source evaluation, and academic integrity. Students will learn how to organize assignments, manage time, and use digital tools for academic purposes. Through guided research tasks and mini-projects, students will build the ability to find, evaluate, and present information in a clear and credible way.

AEAP MATH

This course strengthens foundational math skills while developing the academic language necessary for high school mathematics. Students will explore core topics such as operations with whole numbers and fractions, coordinate geometry, polygons, applied geometry through design

projects, and introductory algebra. Emphasis is placed on problem-solving strategies, interpreting mathematical information, and explaining reasoning using correct vocabulary. Students will apply math concepts to real-world scenarios through projects and presentations.

AEAP ART

A creative exploration of the visual arts with an emphasis on building academic language for artistic expression. Students will learn elements of art and principles of design through drawing, painting, sculpture, and mixed media. Projects will connect personal creativity with cultural and historical influences. Students will practice describing, analyzing, and reflecting on artworks—both their own and those of others—through discussions, written reflections, and presentations.

AEAP HISTORY

This course introduces students to major themes and events in U.S. history through interactive, language-rich instruction. Students will investigate topics such as African American history, Reconstruction, and social reform, using primary and secondary sources to develop historical thinking skills. Emphasis will be placed on academic vocabulary, reading historical texts, forming arguments based on evidence, and making connections between past and present. Activities include debates, projects, and structured writing tasks.

AEAP SCIENCE

This course provides a foundation in high school-level science through engaging, hands-on learning in biology and related fields. Students will study topics such as human body systems, ecology, and sustainability, integrating scientific vocabulary and academic English into their learning. Lab activities, experiments, and group projects will help students develop observation, data collection, and analytical skills. Students will present their findings in written, visual, and oral formats to build confidence in communicating scientific ideas.

ADVISORY

COURSE DESCRIPTION:

The Advisory program at EF Academy is designed to build a strong family feel both within each Advisory group, grade level, and the wider EF community. The Advisory program aims to achieve this by providing students with a safe space for self-expression and to build confidence for personal and socio-emotional development. These skills are inherent in our philosophical commitment to the IB Learner Profile and the EF Graduate Profile. Students work throughout the year with their advisor, building relationships that form the foundation for a student's holistic development.