



Westlake Academy IB World School

Academic Course Guide 2023-2024

Westlake Academy

MISSION STATEMENT:

Westlake Academy is an IB World School whose mission is to provide students with an internationally minded education of the highest quality so they are well-balanced and respectful life-long learners.

VISION:

Westlake Academy inspires college-bound students to achieve their highest individual potential in a nurturing environment that fosters the traits found in the IB Learner Profile.

IB for All:

Westlake Academy operates on the belief that “IB for all” promotes equity and access in all of its courses.

International Baccalaureate Organization

MISSION STATEMENT:

The International Baccalaureate Organization aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the IBO works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

Program Offerings

Diploma Programme (DP)

The International Baccalaureate (IB) Diploma Programme is a rigorous academic program for grades 11-12 that prepares students for advanced study after graduation, and to be global leaders. Students at Westlake Academy are enrolled as IB Diploma Candidates for a two year course of study. The Diploma programme culminates in the award of an IB Diploma following the completion of all IB courses and exams in six subject areas, plus the programme core:

- *Theory of Knowledge- an interdisciplinary course
- *Extended Essay- a 4,000 word research paper based on a self-selected topic
- *Creativity, Activity, Service- learning experiences beyond the classroom

IB courses enhance the acquisition of skills including analyzing information, constructing arguments, and applying key concepts. The IB website states: “The programme aims to develop students who have excellent breadth and depth of knowledge – students who flourish physically, intellectually, emotionally and ethically.” Students taking IB courses earn added value points toward their GPA and completed courses, following the successful achievement on the IB exam, are eligible for college credit.

Middle Years Programme (MYP)

The International Baccalaureate (IB) Middle Years Programme (MYP) is a philosophy of teaching and approach to instruction. Students in the MYP develop critical thinking skills, become independent learners, work collaboratively, and take a disciplined approach to studying. These courses allow for a deeper understanding of the subject matter and allow for engagement with complex ideas while exploring the Texas Essential Knowledge and Skills (TEKS).

At Westlake Academy, MYP classes are offered in grades 6 through 10. While the content and objectives are those required by the State of Texas, MYP classes are aligned to IB assessment criteria, and students earn quality points in their cumulative GPA in grades 9 and 10. Students receive both percentage grades, and criterion grades based on the IB continuum. Three MYP courses in grades 7 and 8 are eligible for high school credit: Spanish or French 1, Algebra 1, and a Fine Art credit in Art or Theater.*

For more information about the MYP and DP Programmes, please visit www.ibo.org. For the class of 2020 and beyond, the weighting scale below is used to calculate the cumulative GPA:

Grade Level	Type of Course	Weighting (Quality Points)
MYP 9-10	MYP*	5
DP 11-12	SL & AP	10
DP 11-12	HL	12

*MYP courses taken prior to ninth grade are not calculated into a student's cumulative GPA.

MYP Course Offerings

MYP Language & Literature

- As well as being academically rigorous, MYP language and literature equips students with linguistic, analytical and communicative skills that can also be used to develop interdisciplinary understanding across all other subject groups. Students' interaction with chosen texts can generate insight into moral, social, economic, political, cultural and environmental factors and so contributes to the development of opinion forming, decision-making and ethical-reasoning skills, and further develops the attributes of an IB learner.
- The objectives and assessment criteria are analyzing, organizing, producing text, and using language

-MYP Language and Literature Guide

MYP Grade 6 English

03200510..... No Credit

Grade Level: 6

Prerequisites: None

Students read and study a variety of challenging works (approximately five books per year, plus poems, short stories, essays, and multimedia texts). Some reading takes place during class, but students are expected to complete about 50% of the reading outside of class. Students apply their reading comprehension skills to analyze significant aspects of texts and apply literary terminology to comment on the creator's choices.

Students write for a variety of purposes and in a variety of forms, balancing between using technology vs. writing by hand and producing polished pieces through the writing process vs. engaging in timed in-class writing. A strong emphasis is placed on literary analysis writing. Students learn to organize ideas in a logical manner, while writing and speaking accurately and effectively.

MYP Grade 7 English

03200520.....No Credit

Grade Level: 7

Prerequisites: None

Students read and study a variety of challenging works (approximately five books per year, plus poems, short stories, essays, and multimedia texts). Some reading takes place during class, but students are expected to complete about 50% of the reading outside of class. Students apply their reading comprehension skills to analyze content, context, language, structure, technique and style of text(s) and the relationships among texts. Students utilize literary terminology to identify and explain the effects of the creator's choices on an audience.

Students write for a variety of purposes and in a variety of forms, balancing between using technology vs. writing by hand and producing polished pieces through the writing process vs. engaging in timed in-class writing. A strong emphasis is placed on literary analysis writing. Students learn to organize ideas in a coherent and logical manner, while writing and speaking accurately and effectively.

MYP Grade 8 English

03200530.....No Credit

Grade Level: 8 **Prerequisites:** None

Students read and study a variety of challenging works (approximately five books per year, plus poems, short stories, essays, and multimedia texts). Some reading takes place during class, but students are expected to complete about 75% of the reading outside of class. Students apply their reading comprehension skills to analyze content, context, language, structure, technique and style of text(s) and the relationships among texts. Students utilize literary terminology to identify and explain the effects of the creator's choices on an audience.

Students write for a variety of purposes and in a variety of forms, balancing between using technology vs. writing by hand and producing polished pieces through the writing process vs. engaging in timed in-class writing. A strong emphasis is placed on literary analysis writing . Students learn to organize ideas in a coherent and logical manner, while writing and speaking accurately and effectively.

MYP English I

03220100.....1.0 Credit

Grade Level: 09 **Prerequisites:** None

Students read and study a variety of challenging works (approximately six books per year, plus poems, short stories, essays, and multimedia texts). Students are expected to read and annotate mostly outside of class, coming to class prepared to engage in discussion. Students apply their reading comprehension skills to analyze content, context, language, structure, technique and style of text(s) and the relationships among texts. Students also utilize literary terminology to analyze the effects of the creator's choices on an audience.

Students write for a variety of purposes and in a variety of forms, balancing between using technology vs. writing by hand and producing polished pieces through the writing process vs. engaging in timed in-class writing. A strong emphasis is placed on literary analysis writing . Students learn to organize ideas in a sustained, coherent, and logical manner, while writing and speaking accurately and effectively.

MYP English II

03220200.....1.0 Credit

Grade Level: 10

Prerequisites: English 1

Students read and study a variety of challenging works (approximately six books per year, plus poems, short stories, essays, and multimedia texts). Students are expected to read and annotate mostly outside of class, coming to class prepared to engage in discussion. Students apply their reading comprehension skills to analyze content, context, language, structure, technique and style of text(s) and the relationships among texts. Students also utilize literary terminology to analyze the effects of the creator's choices on an audience.

Students write for a variety of purposes and in a variety of forms, balancing between using technology vs. writing by hand and producing polished pieces through the writing process vs. engaging in timed in-class writing. A strong emphasis is placed on literary analysis writing . Students learn to organize ideas in a sustained, coherent, and logical manner, while writing and speaking accurately and effectively.

MYP Language Acquisition

- The study of additional languages in the MYP provides students with the opportunity to develop insights into the features, processes and craft of language and the concept of culture, and to realize that there are diverse ways of living, behaving and viewing the world.
- The objectives and assessment criteria for MYP Language Acquisition classes are: listening, reading, speaking, writing.

-MYP Language Acquisition Guide

MYP Comparative Language

03994500.....No Credit

Grade: 6

Prerequisites: None

French and Spanish are wonderful languages and useful tools in the international community. This course is designed as an introduction to the study of French and Spanish languages and related cultures. Students will learn basic French and Spanish grammar and vocabulary. They will also become familiar with the geography and culture of French and Spanish speaking countries. A communicative approach will emphasize listening and speaking skills with reading and writing used as further tools of communication. Students will have many opportunities to interact and engage in French or Spanish on a variety of topics.

French IA

03410100.....0.5 Credit

Grade Level: 7

Prerequisites: None

French IA is an introduction to the French language and culture. Students in this course will develop speaking, writing, and reading proficiency on topics dealing with the everyday life of a student. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Francophone world. The expected outcome of this course is to develop Novice/Mid proficiency. This course is conducted in French for a significant amount of time.

French IB

03410100.....0.5 Credit

Grade Levels: 8

Prerequisites: French IA

French IB continues to introduce students to French language and culture after the year long course of study in French IA. Students in this course will develop speaking, writing, and reading proficiency on topics expanded to include life outside of school and in the real world in this one year course. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Francophone world. The expected outcome of this course is developing Novice/Mid proficiency. This course is conducted in French for a significant amount of time.

French II

03410200.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: French I

French II continues to introduce students to French language and culture. Students in this course will develop speaking, writing, and reading proficiency on topics expanded to include life outside of school and in the real world. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Francophone world. The expected outcome of this course is developing Novice/High proficiency. This course is conducted in French for a significant amount of time.

French III

03410300.....1.0 Credit

Grade Level: 10

Prerequisites: French IA, IB, and French II

French III introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. Students in this course will be supported as they expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary and demonstrating and ability to respond to tasks requiring high cognition and creative thinking. The expected outcome of this course is developing Intermediate/Mid-High Proficiency. This course is conducted predominantly in French.

Spanish IA

03440100.....0.5 Credit

Grade Levels: 7

Prerequisites: None

Spanish I is an introduction to Spanish language and culture. Students in this course will develop speaking, writing, and reading proficiency on topics dealing with the everyday life of a student. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Spanish speaking world. The focus of this course is developing novice mid proficiency. This course is conducted in Spanish for a significant amount of time.

Spanish IB

03440100.....0.5 Credit

Grade Level: 8

Prerequisites: Spanish IA

Spanish IB continues to introduce students to Spanish language and culture after the year long course of study in Spanish IA. Students in this course will develop speaking, writing, and reading proficiency on topics dealing with the everyday life of a student. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Spanish speaking world. The focus of this course is developing novice/mid proficiency. This course is conducted in Spanish for a significant amount of time.

Spanish I HS

03440100.....1.0 Credit

Grade Level: 9-10 **Prerequisites:** none

Students in this course will develop speaking, writing, and reading proficiency on topics dealing with the everyday life of a student. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Spanish speaking world. The focus of this course is developing novice/mid proficiency. This course is conducted in Spanish for a significant amount of time.

Spanish II

03440200.....1.0 Credit

Grade Levels: 9, or 10 **Prerequisites:** Spanish I

Spanish II continues to introduce students to Spanish language and culture. Students in this course will develop speaking, writing, and reading proficiency on topics expanded to include life outside of school and in the real world. Students in this course will be expected to expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary, and demonstrating an ability to respond to tasks requiring high cognition and outside-the-box thinking. Students will be guided in recognizing the interrelationships between cultures and will be able to identify cultural perspectives and practices of the Spanish speaking world. The focus of this course is developing intermediate proficiency. The course is conducted in Spanish for a significant amount of time.

Spanish III

03440300.....1.0 Credit

Grade Levels: 10 **Prerequisites:** Spanish I and Spanish II

Spanish III introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. Students in this course will be expected to expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary, and demonstrating an ability to respond to tasks requiring high cognition and outside-the-box thinking. The focus of this course is developing intermediate high proficiency. This course is conducted predominantly in Spanish.

MYP Individuals & Societies

- MYP individuals and societies courses encourage learners to respect and understand the world around them and equip them with the necessary skills to inquire into historical, contemporary, geographical, political, social, economic, religious, technological and cultural factors that have an impact on individuals, societies and environments. It encourages learners, both students and teachers, to consider local and global contexts.
- Individuals and Societies objectives and assessment criteria:

Knowing and understanding, Investigating, Communicating, and Critical Thinking

-MYP Individuals and Societies Guide

MYP Grade 6 Individuals and Societies

02660060.....No credit

Grade Level: 6

Prerequisites: None

World Cultures gives students the opportunity to study contemporary countries and societies. Students learn about the impact of people on historical and present day events in a variety of societies, and identify locations and geographic characteristics.

Throughout, students learn to examine institutions common to all societies by applying the five foundations of Social Studies: government, economy, culture, geography, and history. Students learn to interpret and compare primary source documents, as well as learn to express that analysis in a historical essay format.

MYP Grade 7 Individuals and Societies

03343000.....No credit

Grade Level: 7

Prerequisites: None

This course provides students the opportunity to study Texas geography, historical development, culture, and government. The course challenges students by extending social studies skills and broadening their knowledge base of Texas history through investigation and interpretation of multiple historical and contemporary viewpoints drawn from the varied cultures that make up the Lone Star State. Students learn to interpret and compare primary source documents, as well as learn to express that analysis in a historical essay format.

MYP Grade 8 Individuals and Societies

03343100.....No credit

Grade Level: 8

Prerequisites: None

Students study the history of the United States from the early colonial period through Reconstruction. The course highlights the impact of geography, culture, trade, religion, and technology during various historical periods. The long-term objective is to guide students in the development of their own skills of analysis while encouraging them to be

life-long learners and ultimately demonstrate an understanding of American history through inquiry and discussion.

AP Human Geography

A3360100.....1.0 Credit

Grade Level: 9

Prerequisites: None

This course introduces students to the systematic study of patterns and processes that have shaped human understanding of the Earth's surface. The course emphasizes the importance of spatial organization – the location of places, people and events, and the connections among places and landscapes – in the understanding of human life on Earth. Geographic concepts emphasized throughout the course are location, place, space, scale, pattern regionalization and globalization. Students learn to use and make maps and to apply mathematical formulas, models and qualitative data to geographical concepts. A significant outcome of the course is students' awareness of viewpoints of the many nations and cultures of the world, building a sense of being members of a global community with shared interests and responsibilities. It is expected that the students will be prepared to take the AP Human Geography Exam in the spring.

AP World History

A3370100.....1.0 Credit

Grade Level: 10

Prerequisites: None

This course encourages students to develop thinking skills used by historians to create deeper conceptual understandings of critical developments in world history and surveys the evolution of global processes and contacts in interaction with different types of human societies from the prehistoric era to the present. Students explore the nature of changes in international frameworks and their causes and consequences as well as comparisons among major societies. The course is designed to prepare the students for the AP World History exam in the spring.

MYP Sciences

- With inquiry at the core, the MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation and experimentation. The MYP sciences curriculum must explore the connections between science and everyday life. As they investigate real examples of science applications, students will discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment.
- The objectives and assessment criteria for Science are: knowing and understanding, inquiring and designing, processing and evaluating, and reflecting on the impacts of science.

-MYP Sciences Guide

MYP Grade 6 Science

03060600.....No Credit

Grade Level: 6

Prerequisites: None

Grade 6 science is interdisciplinary in nature; however much of the content focus is on physical science. This exploratory course engages students through inquiries into the world around them. Units focus on scientific investigation and reasoning, matter and energy, force and motion, earth and space, and organisms and environments.

MYP Grade 7 Science

03060700.....No Credit

Grade Level: 7

Prerequisites: None

Grade 7 science is interdisciplinary in nature; however, much of the content focus is on life sciences, organisms and the environment. Recurring themes are pervasive in MYP sciences. These ideas transcend disciplinary and grade level boundaries and include change and constancy, balance, patterns, cycles, systems, models, form, function, evidence, movement, and scale. Units focus on investigative design, plant and animal cells, ecosystems, introduction to genetics, body systems, and the interdependence of living systems.

MYP Grade 8 Science

03060800No Credit

Grade Level: 8

Prerequisites: None

Grade 8 science is interdisciplinary in nature; however, much of the content focus is on earth and space science. Recurring themes are pervasive in MYP sciences. These ideas transcend disciplinary and grade level boundaries and include change and constancy, balance, patterns, cycles, systems, models, form, function, evidence, movement, and scale. Units focus on investigative design, matter and energy, force and motion, study of earth and space, and energy transfer through systems.

MYP Biology

03010200.....1.0 Credit

Grade Level: 9

Prerequisites: None

This biology course offers an in-depth study and observation of living organisms in the environment, prepared specimens, various ecosystems, and inherited traits. Student investigations emphasize accurate observations, collection of data, data analysis, and the safe manipulation of laboratory apparatus and materials in the field and the laboratory. The course vertically aligns with the expectations of the upper level IB science courses.

MYP Chemistry

03040000.....1.0 Credit

Grade Level: 10

Prerequisites: One year of high school science and Algebra 1

The Chemistry course is designed to introduce the student to the qualitative and quantitative aspects of a first year chemistry program. An in-depth study of the mathematical applications will be stressed. The course will emphasize the theoretical concepts of molecular bonding, thermodynamics, kinetics, and equilibrium. The descriptive aspects of the periodic table will be dealt with throughout the course. The course vertically aligns with expectations of the upper level IB science courses.

MYP Physics

03050000.....1.0 Credit

Grade Level: 10

Prerequisites: One year of high school science and Algebra 1

This course is the study of the relationships between matter and energy. The concepts of mechanics, heat, sound, optics, electricity and magnetism will be explored and reinforced through experiments in the laboratory, topic-related construction projects, and through conceptual and mathematical problem solving. The required mathematical skills and algebraic techniques are reinforced and enriched in an integrated manner with conceptual understanding in the topics listed above. The course vertically aligns with expectations of the upper level IB science courses.

MYP Mathematics

- MYP Mathematics courses encourage learners to acquire mathematical understanding by constructing their own meaning through increasing levels of abstraction, starting with an exploration of their own personal experiences, understandings and knowledge. The courses are taught in relevant, realistic contexts, rather than by attempting to impart a fixed body of knowledge. Teaching and learning experiences challenge students to be curious, ask questions and explore and interact with the environment physically, socially and intellectually. MYP mathematics courses help specifically to prepare students for the study of DP mathematics courses. As students progress from the MYP to the DP, the emphasis on understanding increases as students work towards developing a strong mathematical knowledge base that will allow them to study a wide range of topics.
- The objectives and assessment criteria for Mathematics are: knowing and understanding, investigating patterns, communicating, and applying mathematics in real-life contexts.

-MYP Mathematics Guide

MYP Grade 6 Math

02820000.....No credit

Grade Level: 6

Prerequisites: None

The IB MYP is a philosophy of teaching and an approach to instruction. Students in MYP explore significant real-world application, develop skills, and deepen conceptual understanding through their engagement with global contexts. MYP Grade 6 Math is an accelerated course covering the 6th grade state math standards *as well as one semester of grade 7 math*. In addition to the concepts of number and operations; proportionality; expressions, equations and relationships; and measurement and data, the curriculum will include many of the seventh grade concepts as well as rigorous problem solving. This accelerated pacing allows students to take Algebra 1 in 8th grade. This course is not eligible for quality point weighting.

MYP Pre-Algebra

03103000.....No credit

Grade Level: 7

Prerequisites: None

The IB MYP is a philosophy of teaching and an approach to instruction. Students in MYP explore significant real-world application, develop skills, and deepen conceptual understanding through their engagement with global contexts. MYP Grade 7 Math is an accelerated course covering the Pre-Algebra foundational skills to prepare students for Algebra 1. Pre-algebra includes several broad subjects: Review of natural number arithmetic, new types of numbers such as integers, fractions, decimals and negative numbers, basics of equations, including rules for invariant manipulation of equations, understanding of variable manipulation, and manipulation and arithmetic with the

standard 4-quadrant Cartesian coordinate plane. Pre-algebra also includes subjects from geometry, especially subjects that further understanding of algebra in applications to area and volume.

This course is not eligible for quality point weighting. *8th grade math TEKS are a prerequisite for Algebra 1.*

MYP Algebra I

03100500.....1.0 Credit

Grade Level: 8 or 9

Prerequisites: 8th grade math TEKS

Algebra I includes the knowledge and skills relating to the concept of a variable, algebraic manipulations necessary in problem solving, graphs of linear, quadratic, and exponential functions, the solution of equations and inequalities, and data analysis. The use of manipulatives and technology, which includes the graphing calculator, is an integral part of the course. Students can expect to spend time on independent practice outside of the classroom every day the class meets. Students will use a TI-84 graphing calculator on a regular basis. All MYP mathematics courses are designed and assessed around the following objectives: (1) knowing and understanding – selecting and applying mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts; (2) investigating patterns – selecting and applying mathematical problem-solving techniques to discover complex patterns, describing patterns as general rules, and proving, or verifying and justifying, general rules; (3) communicating – using appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing; and (4) applying mathematics in real-life contexts – transferring theoretical mathematical knowledge into real-world situations and applying appropriate problem-solving strategies, drawing valid conclusions and reflecting upon their results. This course aligns vertically with the sequence of IB math courses.

MYP Geometry

03100700.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: Algebra 1

This MYP mathematics course builds on students' previous study of mathematical concepts to strengthen their mathematical reasoning skills in geometric contexts. Topics include coordinate and transformational geometry; logical argument and constructions, congruence and similarity with proofs, special right triangles and trigonometry; polygons; circles; two- and three-dimensional figures; and an introduction to geometric probability. All MYP mathematics courses are designed and assessed around the following objectives: (1) knowing and understanding – selecting and applying mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts; (2) investigating patterns – selecting and applying mathematical problem-solving techniques to discover complex patterns, describing patterns as general rules, and proving, or verifying and justifying, general rules; (3) communicating – using appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing; and (4) applying mathematics in real-life contexts – transferring theoretical mathematical knowledge into real-world situations and

applying appropriate problem-solving strategies, drawing valid conclusions and reflecting upon their results.

This course aligns vertically with the sequence of IB math courses. Students may take Geometry and Algebra II simultaneously their Freshman year to accelerate their math instruction and be eligible to take Pre-Calculus in Grade 10 *with prior approval*.

MYP Algebra II

03100600.....1.0 Credit

Grade Level: 9 or 10 **Prerequisites:** Algebra I

In this course, MYP students will broaden their knowledge of quadratic functions, exponential functions, and systems of equations. Topics also include logarithmic, exponential, square root, cubic, cube root, absolute value, rational functions, and their related equations and data analysis. All MYP mathematics courses are designed and assessed around the following objectives: (1) knowing and understanding – selecting and applying mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts; (2) investigating patterns – selecting and applying mathematical problem-solving techniques to discover complex patterns, describing patterns as general rules, and proving, or verifying and justifying, general rules; (3) communicating – using appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing; and (4) applying mathematics in real-life contexts – transferring theoretical mathematical knowledge into real-world situations and applying appropriate problem-solving strategies, drawing valid conclusions and reflecting upon their results. This course aligns vertically with the sequence of IB math courses.

This course aligns vertically with the sequence of IB math courses. Students may take Geometry and Algebra II simultaneously their Freshman year to accelerate their math instruction and be eligible to take Pre-Calculus in Grade 10 *with prior approval*.

MYP Precalculus

03101100.....1.0 Credit

Grade Level: 10 **Prerequisites:** Algebra I, Geometry, and Algebra II

Pre-calculus is designed for students who want to be better prepared for Mathematics: Analysis and Approaches HL. Topics covered are elementary functions, transcendental functions, sequences and series, and vectors. This course will promote a deeper understanding of the mathematical topics covered, extend these topics past what is given in a standard course, and present new topics that will help them pursue their future mathematical studies. The extended topics are specifically chosen to help prepare the student for Mathematics: Analysis and Approaches HL in terms of both their algebra and geometry skills and their understanding of the underlying topics.

MYP Arts

- In MYP arts students have opportunities to function as artists, as well as learners of the arts. Artists have to be curious. By developing curiosity about themselves, others and the world, students become effective learners, inquirers and creative problem-solvers. Students develop through creating, performing and presenting arts in ways that engage and convey feelings, experiences and ideas. It is through this practice that students acquire new skills and master those skills developed in prior learning.
- The objectives and assessment criteria for MYP Arts are: knowing and understanding, developing skills, thinking creatively, and responding.

-MYP Arts Guide

Grade 6 Music

03154131.....no credit

Grade Level: 6 **Prerequisites:** None

Grade 6 Music develops basic music literacy in the areas of music theory, music concepts, and music history. Students will also learn basic skills of vocalization and instruments.

Grade 7 Art

03154110.....no credit

Grade Level: 7 **Prerequisites:** None

Grade 7 Art allows the students the opportunity to learn how to work with a large variety of materials. Students extend their basic understanding of art through drawings, color study, painting, printmaking, technology, sculpture, and ceramics. This course is vertically aligned with the expectations of the IB course requirements.

Grade 8 Theater

03154140.....no credit

Grade Level: 8 **Prerequisites:** None

Grade 8 Theater is an introduction to the high school theater program. Basic acting technique, technical theater, and the fundamentals of play production are explored. The course also includes the training of the speaking voice, the study of stage diction, and an exploration of theater history. This course is vertically aligned with the expectations of the upper level IB course requirements.

Art I

03500100.....1.0 Credit

Grade Level: 8 or 9 **Prerequisites:** None

Art I allows the students the opportunity to learn how to work with a large variety of materials. Students extend their basic understanding of art through drawings, color study, painting, printmaking, technology, sculpture, and ceramics. This course is vertically aligned with the expectations of the upper level IB course requirements. *This is a two*

semester course in which students must take both semesters to meet the one year fine art requirement.

Art II

03500200.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: Art 1

The student develops and expands visual literacy skills using critical thinking, imagination, and the senses to observe and explore the world by learning about, understanding, and applying the elements of art, principles of design, and expressive qualities. The student uses what the student sees, knows, and has experienced as sources for examining, understanding, and creating original artworks. The student is expected to:

- use visual comparisons to illustrate concepts and ideas from direct observation, original sources, experiences, narration, and imagination for original artworks;
- identify and apply the elements of art, including line, shape, color, texture, form, space, and value, as the fundamentals of art in personal artworks;
- identify and apply the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion, and unity in personal artworks; and
- explore suitability of art media and processes to express specific ideas such as content, meaning, message, appropriation, and metaphor relating to visual themes of artworks using art vocabulary accurately.

Theater 1

03250100.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: None

This is an introductory performance course. It incorporates basic acting techniques, the role of the actor in interpreting dramatic literature, the historical evolution of performance styles and dramatic themes, and a general appreciation for Theatre. The student will learn basic movement, body control, vocal technique, and the development of character as it relates to differing periods and styles of drama.

Other MYP Required Courses

MYP Design courses challenge students to:

- apply practical and creative thinking skills to solve design problems with feasible solutions
- explore the role of design in both historical and contemporary contexts
- consider their responsibilities when making design decisions and taking action.

MYP Design focuses on a holistic design process rather than final products and solutions. The interdisciplinary nature of Design addresses a dynamic curriculum that supports the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world.

The objectives and assessment criteria for Design courses are :

A: inquiring and analyzing, B: developing ideas, C: creating the solution, and D: evaluating.

-MYP Design Guide

Design

02060000.....No Credit

Grade Level: 6-8

Prerequisites: None

**The following electives listed below are taught in alignment with the MYP Design course framework.*

*Physical and Health Education

03823000.....No Credit

Grade Level: 6-8

Prerequisites: None

The student will learn to develop a plan for a physically active lifestyle that can be utilized throughout adult life. The student will be educated about his/her personal levels of physical activity and fitness and will experience the benefits of physical conditioning and nutrition. The student will be exposed to a variety of individual sports that will develop and enhance their knowledge on lifelong physical activities. Health is designed to provide knowledge and understanding of the following areas: CPR, safety and emergency procedures, first aid, real life applications., communicable diseases, mental health, body systems, environmental health and other topics related to social importance in middle school.

***Physical and Health Education**

PES00052.....1.0 Credit

Grade Level: 9 or 10**Prerequisites:** None

The student will learn to develop a plan for a physically active lifestyle that can be utilized throughout adult life. The student will be educated about his/her personal levels of physical activity and fitness and will experience the benefits of physical conditioning, weight training, and nutrition. The student will be exposed to a variety of individual sports that will develop and enhance their knowledge on lifelong physical activities. Health is designed to provide knowledge and understanding of the following areas: CPR, safety and emergency procedures, first aid, real life applications, communicable diseases, mental health, drugs, alcohol and tobacco, body systems, environmental health and other topics related to social importance in high school and college.

AP United States Government & Politics

A33301100.....0.5 Credit

Grade Level: 10**Prerequisites:** None

This course provides understanding of the effects of political theories on the development of American political behaviors and institutions. Topics include the structures and functions of government, political processes, and the role of the citizen at local, state, and national levels. Independent research, college-level reading materials, classroom discussion, and extensive writing assignments provide challenges for critical thinking and expression to allow students to successfully complete the AP exam for college credit.

MYP Design

AP Computer Science Principles

A3580300.....1.0 Credit

Grade Level: 10**Prerequisites:** None

The Advanced Placement course introduces students to the central idea of computer science that include problem solving, design strategies and methodologies, organization of data structure and approaches to processing data, analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design techniques that represent proven approaches to developing solutions that can scale up from simple problems to more complex problems. The AP Computer Science principles course is equivalent to a first semester introductory computing course.

Principles of Applied Engineering

13036200.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: None

This course provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Students will gain an understanding of the various fields of engineering, including robotics, and will be able to make informed career decisions. Further, students will have worked on a design team to develop a product or system. Students will also work on the development of communication and presentation skills required for success in the workforce.

Principles of Business, Marketing, and Finance

13011200.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: None

Students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

Principles of Health Sciences

13020200.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: None

Principles of Health Science provides an overview of career exploration through systems of the healthcare industry. The course focuses on ethics, leadership, cultural diversity, communication skills and an introduction to medical math and research, with an emphasis on past and current healthcare trends. Small groups with cooperative peer interactions and presentation skills are necessary to be successful. This course will also introduce new topics specific to the healthcare industry to expand upon previous knowledge. Key topics include: public health, community education, nutrition, health and wellness across life stages and infection control. Students must demonstrate competency in medical skills as well as master medical terminology. This course will help prepare students for the transition into clinical or work-based experiences.

Principles of Information Technology

13027200.....1.0 Credit

Grade Level: 9 or 10

Prerequisites: None

In this course students will develop computer science literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication and reasoning skills and apply them to the information technology environment. This introductory course exposes students to skills required for the IOT and Business fields, which include hardware, software applications, programming, network systems, emerging technologies, and information ethics.

Project Based Research (PBR)

12701500.....1.0 Credit

Grade Level: 10

Prerequisites: None

Project-Based Research is a Texas career development course designed to help students pursue answers to the questions such as, Who am I? Why am I here? What am I meant to do with my life? Students develop research and media literacy skills to investigate personal development, real-world problems, and careers. Students also develop communication skills to report research findings in oral, written, and multimedia forms.

As defined in the IB Individuals and Societies Guide, the aims of MYP Project-Based Research are to encourage and enable students to:

- appreciate human and environmental commonalities and diversity
- understand the interactions and interdependence of individuals, societies and the environment
- understand how both environmental and human systems operate and evolve
- identify and develop concern for the well-being of human communities and the natural environment
- act as responsible citizens of local and global communities
- develop inquiry skills that lead towards conceptual understandings of the relationships between individuals, societies and the environments in which they live.

In addition, students develop research and writing skills that are transferable to other content areas, Personal Project, and Extended Essay.

Diploma Programme Course Offerings

Group 1- Language Studies A: Literature

IB English Literature HL Year 1

I3220800.....1.0 Credit

Grade Level: 11

Prerequisites: English II

IB English HL 1 focuses on Language and Literature, providing an emphasis on critically appreciating literature as an art form. While developing skills of textual analysis, development of analytical writing, and critical listening and speaking skills through discussions and commentaries. The use of literary essays will help with the understanding of themes important to analyzing single works and developing similarities and differences between contrasting works. Students will achieve this through a variety of mediums, which may include film, graphic novels, journalistic and social media, as well as traditional genres.

IB English Literature HL Year 2

I3220800.....1.0 Credit

Grade Level: 12

Prerequisites: IB English Literature HL 1

The IB English HL 2, Language and Literature builds on year one to refine the student's skills of textual analysis and understanding related to culturally determined reading practices. Students will transfer their understanding of the ways in which formal elements are used to create meaning in a nontraditional text to more traditional texts. A continued exploration of how meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception is expanded to more canonical works. The second year of the course connects the students' understanding of how language creates meaning in untraditional texts to a close analysis and consideration of how language creates meaning in traditional literary works and genres.

Group 2 - Language Acquisition

IB French Ab Initio SL Year 1

I3110300.....1.0 Credit

Grade Levels: 11 & 12

Prerequisites: Language department approval

IB French Ab Initio introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. Students in this course will be expected to expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary, and demonstrating an ability to respond to tasks requiring high cognition and outside-the-box thinking. The focus of this course is developing intermediate high proficiency. This course will prepare students to take the IB French Ab Initio exam. This course is conducted predominantly in French and is for the student with less than two years of the language.

IB French Ab Initio SL Year 2

I3110300.....1.0 Credit

Grade Levels: 11 & 12

Prerequisites: Language department approval

IB French Ab Initio introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. Students in this course will be expected to expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary, and demonstrating an ability to respond to tasks requiring high cognition and outside-the-box thinking. The focus of this course is developing intermediate high proficiency. This course will prepare students to take the IB French Ab Initio exam. This course is conducted predominantly in French and is for the student with less than two years of the language.

IB French SL Year 1

I3410400.....1.0 Credit

Grade Level: 11

Prerequisites: French III

French IV IB stresses the development of fluency in oral skills, comprehension of French literature and history, expository composition, and expanded use of grammar. This course utilizes higher level/critical thinking skills and focuses on the development of accuracy and fluency. Students participate in oral examinations which are moderated by international educators. This course prepares the student to take the IB French SL exam and is conducted predominantly in French.

IB French SL Year 2

I3410400.....1.0 Credit

Grade Level: 12

Prerequisites: IB French SL Year 1

French IV IB stresses the development of fluency in oral skills, comprehension of French literature and history, expository composition, and expanded use of grammar. This course utilizes higher level/critical thinking skills and focuses on the development of accuracy and fluency. Students participate in oral examinations which are moderated by international educators. This course prepares the student to take the IB French SL exam and is conducted predominantly in French.

IB Spanish Ab Initio SL Year 1

I3110300.....1.0 Credit

Grade Levels: 11 & 12

Prerequisites: Language department approval

IB Spanish Ab Initio introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. Students in this course will be expected to expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary, and demonstrating an ability to respond to tasks requiring high cognition and outside-the-box thinking. The focus of this course is developing intermediate high proficiency. This course will prepare students to take the IB Spanish Ab Initio exam. This course is conducted predominantly in Spanish and is for the student with less than two years of the language.

IB Spanish Ab Initio SL Year 2

I3110300.....1.0 Credit

Grade Levels: 11 & 12

Prerequisites: Language department approval

IB Spanish Ab Initio introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. Students in this course will be expected to expand their vocabulary and increase the complexity of their products by owning their own learning, implementing personal and self-selected vocabulary, and demonstrating an ability to respond to tasks requiring high cognition and outside-the-box thinking. The focus of this course is developing intermediate high proficiency. This course will prepare students to take the IB Spanish Ab Initio exam. This course is conducted predominantly in Spanish and is for the student with less than two years of the language.

IB Spanish SL Year 1

I3440400.....1.0 Credit

Grade Level: 11

Prerequisites: Spanish III

IB Spanish SL stresses the development of fluency in oral skills, comprehension of Spanish literature and history, expository composition, and expanded use of grammar. This course utilizes higher level/critical thinking and focuses on the development of accuracy and fluency. Students participate in oral examinations which are moderated by international educators. This course prepares the student to take the IB Spanish SL exam.

IB Spanish SL Year 2

I3440400.....1.0 Credit

Grade Level: 12

Prerequisites: IB Spanish SL Year 1

IB Spanish SL stresses the development of fluency in oral skills, comprehension of Spanish literature and history, expository composition, and expanded use of grammar. This course utilizes higher level/critical thinking and focuses on the development of accuracy and fluency. Students participate in oral examinations which are moderated by international educators. This course prepares the student to take the IB Spanish SL exam.

IB Spanish HL1

I3440500.....1.0 Credit

Grade Level: 11

Prerequisites: Spanish III

IB Spanish HL stresses the development of fluency in oral skills, comprehension of Spanish literature and history, expository composition, and expanded use of grammar. It utilizes high level/critical thinking and focuses on the development of accuracy and fluency. Students participate in oral examinations which are moderated by international educators. This course prepares students to take the IB Spanish HL exam.

IB Spanish HL 2

I3440500.....1.0 Credit

Grade Level: 12

Prerequisites: IB Spanish SL Year 1 or IB Spanish HL Year 1

IB Spanish HL stresses the development of fluency in oral skills, comprehension of Spanish literature and history, expository composition, and expanded use of grammar. It utilizes high level/critical thinking and focuses on the development of accuracy and fluency. Students participate in oral examinations which are moderated by international educators. This course prepares students to take the IB Spanish HL exam.

Group 3- Individuals & Societies

IB History of the Americas HL Year 1

I3301300.....1.0 Credit

Grade Level: 11

Prerequisites: Two humanities credits

The IB History of the Americas course emphasizes the Colonial-Revolutionary War Period, Constitutional Period, the Age of Jackson, the Civil War and Reconstruction, the Progressive Era, the New Deal, and the emergence of America as a superpower after World War II. Cultural diversities and the role of minorities are an important focus, in addition to locating the development of the United States in the broader context of the Americas. To prepare for the IB History HL exam taken at the end of Year 2, three topics are studied in particular depth: “The causes, course and effects of the US Civil War (1840-1877)”; “The emergence of the Americas in global affairs (1880-1929)”; The Cold War and the Americas (1945-1981). Throughout the course, analytical and research skills will be used to study and evaluate primary sources and scholarly works. The first year of this course also prepares students for the AP US History exam.

IB History of the Americas HL Year 2

I3301300.....1.0 Credit

Grade Level: 12

Prerequisites: IB History of the Americas HL Year 1

IB History of the Americas Year 2 focuses on three topics drawn from twentieth-century world history. The first topic, “Authoritarian States”, examines Nazi Germany and Maoist China, allowing students to comparatively explore the emergence, maintenance and consolidation of power. Secondly, the topic “Move to Global War” analyzes the expansionist policies of the axis powers - Germany, Italy and Japan - in the 1930s. The final unit, “The Cold War: superpower tensions and rivalries”, focuses on how superpower rivalries changed according to styles of leadership, strength of ideological beliefs, economic factors and crises involving client states. Students will also complete a 2,200 word Historical Investigation on a detailed topic of their choice. Throughout the course, evaluation of primary and secondary documents is a focus, along with building high-level research skills. Students completing this course are prepared for the IB History HL exam.

Group 4 - Sciences

IB Biology HL Year 1

I3010202.....1.0 Credit

Grade Level: 11

Prerequisites: Two credits of science

IB Biology HL is the study of general biological principles as well as more specialized biological sciences. Cell and molecular biology, genetics, ecology, evolution, biodiversity, human physiology, and aspects of adaptation are integrated within the course. This course prepares students for the IB Biology HL exam.

IB Biology HL Year 2

I3010202.....1.0 Credit

Grade Level: 12

Prerequisites: IB Biology HL Year 1

Topics include the study of nucleic acids, metabolism, plant biology, animal physiology, genetics, and evolution. The course builds a deeper understanding and provides additional applications of topics covered in IB Biology SL. Students are prepared for the IB Biology HL exam.

IB Chemistry SL Year 1

I3040003.....1.0 Credit

Grade Level: 11

Prerequisites: Two credits of science including Chemistry

IB Chemistry SL focuses on matter, its interactions, and the energy that accompanies matter. Some topics included are thermochemistry, chemical bonding, kinetic, equilibrium, electrochemistry, and organics. This course prepares students for the IB Chemistry SL exam.

IB Chemistry SL Year 2

I3037200.....1.0 Credit

Grade Level: 12

Prerequisites: IB Chemistry SL Year 1

IB Chemistry SL Year 2 is a second year continuation of IB Chemistry SL. It builds to provide a deeper understanding and additional applications of the topics covered. Topics include matter, its interactions, and energy of matter. Some additional topics are thermochemistry, chemical bonding, kinetics equilibrium and electrochemistry. This course prepares the student for the IB Chemistry SL exam.

IB Physics SL Year 1

I3050002.....1.0 Credit

Grade Level: 11**Prerequisites:** Two science credits including Physics

IB Physics SL is a two year sequential study of physical principles which govern the behavior of matter. It includes mechanics, electricity, magnetism, thermodynamics, kinetic theory, electromagnetic radiation, optics, and atomic and nuclear physics. This course prepares the student for the IB Physics SL exam.

IB Physics SL Year 2

I3037200.....1.0 Credit

Grade Level: 12**Prerequisites:** IB Physics SL Year 1

IB Physics SL is a two year sequential study of physical principles which govern the behavior of matter. It includes mechanics, electricity, magnetism, thermodynamics, kinetic theory, electromagnetic radiation, optics, and atomic and nuclear physics. This course prepares the student for the IB Physics SL exam.

IB Physics HL Year 1

I3050002.....1.0 Credit

Grade Level: 11**Prerequisites:** Two science credits including Physics

IB Physics SL is a two year sequential study of physical principles which govern the behavior of matter. It includes mechanics, electricity, magnetism, thermodynamics, kinetic theory, electromagnetic radiation, optics, and atomic and nuclear physics. This course prepares the student for the IB Physics SL exam.

IB Environmental Systems and Societies SL Year 1

I3020000.....1.0 Credit

Grade Level: 11**Prerequisites:** Two science credits

The IB Environmental Systems and Societies SL course will provide students with scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. IB Environmental Systems and Societies SL is interdisciplinary; it embraces a wide variety of topics from different areas of study. There are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. This course prepares the student to take the IB Environmental Systems SL exam.

IB SL Environmental Systems and Societies SL Year 2

I3020000.....1.0 Credit

Grade Level: 12

Prerequisites: IB ES&S Year 1

The IB Environmental Systems and Societies SL course will provide students with scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze the environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. IB Environmental Systems and Societies SL is interdisciplinary; it embraces a wide variety of topics from different areas of study. There are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. This course prepares the student to take the IB Environmental Systems SL exam.

Group 5 - Mathematics

IB Mathematics Applications and Interpretations SL Year 1

I3100700.....1.0 Credit

Grade Level: 11

Prerequisites: Algebra I, Geometry, and Algebra II

IB MAI is offered at the SL level. It is appropriate for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. This course has an emphasis on statistics and modeling. Students who take MAI will be those who enjoy mathematics best when seen in a practical context. Topics taught in this course include: Functions (linear, quadratic, and exponential), Statistics, and Probability. This course prepares students to take the IB Mathematics Applications and Interpretation SL exam.

IB Mathematics Applications and Interpretations SL Year 2

I3100700.....1.0 Credit

Grade Level: 12

Prerequisites: IB Math Applications and Interpretations SL 1

IB MAI SL 2 is the second year of a two-year sequence that is part of the IB Diploma Program. Topics taught in this course during the second year will include Calculus (Derivatives and Integrals), Geometry, and Trigonometry. Students will also complete their Internal Assessment (IA) project. The IA is a capstone project that allows a student to demonstrate their understanding of the math they have learned. This course prepares students to take the IB Mathematics Applications and Interpretation SL exam.

IB Mathematics Analysis and Approaches SL Year 1

I3100500.....1.0 Credit

Grade Level: 11

Prerequisites: Algebra I, Geometry, and Algebra II

IB Mathematics AA SL 1 is the first year of a two-year sequence that is part of the IB Diploma Program. This course is for students who have strong algebra 2 skills and who wish to pursue studies in mathematics at university or subjects that have a large mathematical content. It is designed for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will explore real and abstract applications, sometimes with technology, and will enjoy the thrill of mathematical problem solving and generalization. Core topics covered in year 1 include *number and algebra, functions, and geometry and trigonometry*. This course prepares students to take the IB Mathematics SL exam.

IB Mathematics Analysis and Approaches SL Year 2

I3100500.....1.0 Credit

Grade Level: 12

Prerequisites: IB Mathematics Analysis and Approaches SL1

IB Mathematics AA SL 2 is the second year of a two-year sequence that is part of the IB Diploma Program. Topics covered in year 2 include *calculus* and *statistics and probability*. This course prepares students to take the IB Mathematics Approaches and Analysis SL exam.

IB Mathematics Analysis and Approaches HL Year 1

I3100600.....1.0 Credit

Grade Level: 11

Prerequisites: Algebra I, Geometry, Algebra II, and

Precalculus recommended

This course caters to students with a strong background in mathematics who are competent in a range of analytical skills. The majority of these students will include mathematics as a major component of their university studies, either as a subject in its own right or within courses such as physics, engineering, and technology. Others may take this subject because they have a strong interest in mathematics and enjoy meeting its challenges and engaging in problems. Applications will be integrated within a written individualized research project. Core topics include algebra, functions, trigonometry, vectors, mathematical proofs, complex numbers, vectors, statistics and probability, calculus and differential equations, and additional topics. This course is available for International Baccalaureate candidates who have been pre-approved by the math department chairperson. Students enrolled in this course are required to take the appropriate IB examination.

IB Mathematics Analysis and Approaches HL Year 2

I3100600.....1.0 Credit

Grade Level: 12

Prerequisites: IB Mathematics HL Year 1

IB Mathematics AA HL 2 is the second year of a two-year sequence that is part of the IB Diploma Program. Topics covered in year 2 include Calculus (continuation from previous program), Statistics & Probability and Number and Algebra (continuation from previous program). This course prepares students to take the IB Mathematics Approaches and Analysis HL Exam.

Group 6 - Arts

IB Visual Art HL 1

I3600100.....1.0 Credit

Grade Level: 11

Prerequisites: Art 1

IB Visual Art III HL is designed for students who are seriously interested in the actual experience of creating and researching art. This course is individually charted to meet the needs and interests of each student as well as offering an overview of a large number of mediums. IB Visual Art III HL includes both independent research and instruction in advanced art techniques and media exploration. This course is the first course necessary for preparation for the IB Visual Art HL exam. Students are prepared to take the IB Visual Art HL exam upon completion of this two year course; students will continue on to IB Visual Art IV HL and will take the IB Visual Art HL exam.

IB Visual Art HL 2

I3600100.....1.0 Credit

Grade Level: 12

Prerequisites: IB Visual Art HL 1

IB Visual Art IV HL is the second year of IB Art. It delves deeper into the experience of creating and researching art. This course is individually charted to meet the needs and interests of each student. IB Art includes independent research and instruction in advanced art techniques and media. This course is the second course necessary for preparation for the IB Visual Art HL exam.

DP Electives

IB Economics HL Year 1

I3303200.....1.0 Credit

Grade Level: 11

Prerequisites: None

This two year course focuses on the Principles of Macroeconomics and Microeconomics. The study of economics is essentially about dealing with scarcity, resource allocation, and methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements. IB Economics has a pronounced international approach and considers the current and future problems of less developed countries and their impact on the world economy. This is a two-year program for the preparation for the IB Economics HL exam. The first year of this course also prepares students for both the AP Macroeconomics exam and the AP Microeconomics exam.

IB Economics HL Year 2

I3303200.....1.0 Credit

Grade Level: 12

Prerequisites: IB Economics HL Year 1

This two year course focuses on the Principles of Macroeconomics and Microeconomics. The study of economics is essentially about dealing with scarcity, resource allocation, and methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements. IB Economics has a pronounced international approach and considers the current and future problems of less developed countries and their impact on the world economy. This is a two-year program for the preparation for the IB Economics HL exam.

IB Business Management HL Year 1

N1290326.....1.0 Credit

Grade Level: 11

Prerequisites: None

IB Business & Management HL helps students gain knowledge and skills in economies and private enterprise systems. The impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business and marketing. This is a two-year program for the preparation for the IB Business & Management HL exam.

IB Business Management HL

N1290326.....1.0 Credit

Grade Level: 11

Prerequisites: IB Business Management Year 1

IB Business & Management HL helps students gain knowledge and skills in economies and private enterprise systems. The impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business and marketing. This is a two-year program for the preparation for the IB Business & Management HL exam.

IB Computer Science SL Year 1

I3580200.....1.0 Credit

Grade Level: 11

Prerequisites: AP Computer Science Principles or Faculty Approval

This course is a two-year sequential study course that introduces students to computer science. Topics include system fundamentals, computer organization, networks, computational thinking, problem solving and programming. Some additional topics can be: databases, modeling and simulation, web science and object oriented programming. This course prepares the student for the IB Computer Science SL exam.

IB Computer Science SL Year 2

I3580200.....1.0 Credit

Grade Level: 12

Prerequisites: IB Computer Science SL 1

IB Computer Science SL 2 is a second-year continuation of Computer Science SL. Students will design software independently and as part of a team, using industry-standard programming tools and applying the software development life-cycle model. They will also write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields. This course prepares the student for the IB Computer Science SL exam.

DP Required Courses

Professional Communication

13009900.....0.5 Credit

Grade Level: 11

Prerequisites: None

Professional Communications is a course that blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional or and written communication. All aspects of human interaction, whether professional or social, rely on effective communication skills.

Theory of Knowledge SL Year 1

N1290322.....1.0 Credit

Grade Level: 11

Prerequisites: None

The Theory of Knowledge course asks students to evaluate the validity of knowledge and ways of knowing; students are asked to examine each field of knowledge and question both the process and product of their learning. While abstract discussion is certainly a part of such a course, the students are grounded in a brief survey of intellectual history. Skill development centers on analysis, original thought, oral presentations, and written work. IB Theory of Knowledge is unique to the International Baccalaureate program and is mandatory for every IB diploma candidate.

Theory of Knowledge SL Year 2

.....0.5 Credit

Grade Level: 12

Prerequisites: IB TOK Year 1

The Theory of Knowledge course asks students to evaluate the validity of knowledge and ways of knowing; students are asked to examine each field of knowledge and question both the process and product of their learning. While abstract discussion is certainly a part of such a course, the students are grounded in a brief survey of intellectual history. Skill development centers on analysis, original thought, oral presentations, and written work. IB Theory of Knowledge is unique to the International Baccalaureate program and is mandatory for every IB diploma candidate.