

IB Program Course Guide 2012-2013



OAKMONT HIGH SCHOOL
ROSEVILLE JOINT UNION HIGH SCHOOL DISTRICT

International Baccalaureate Program

Oakmont High School offers the Diploma Program (DP), a rigorous pre-university course of studies for highly motivated students in grades 11th and 12th. Students can take 1 or more IB classes or complete the full diploma program. The broad and balanced curriculum requires students to study languages, social science, experimental science, mathematics, and an elective course. Whenever possible, curriculum is approached from an international perspective. There are currently 2546 universities from 75 countries accepting the IB diploma; including North America, Western Europe and Australia. Many other universities also admit IB Diploma holders.

Interested parents and students should read more about our program at <http://ohsib.rjuhsd.us> (the application to apply it at this site) then contact Michelle Mahoney, IB Coordinator, at 782-3781, ext. 2715 or email mmahoney@rjuhsd.us.

This is a sample of the course of study over the 9th and 10th grade years.

| 9 th Grade Term 1 | 9 th Grade Term 2 | 10 th Grade Term 1 | 10 th Grade Term 2 |
|------------------------------|------------------------------|--|-------------------------------|
| Health | Geography or Computer Apps I | Honors English 10 blocked with AP European History | |
| Algebra 1 or Elective | Geometry | PE 10 | H Chemistry or Physics |
| PE 9 | CP Biology | Algebra 2 | Elective or Pre Calculus |
| Spanish 1 or French 1 | Elective | Spanish 2 or French 2 | Spanish 3 or French 3 |

This is a sample of the course of study over the 11th and 12th grade years. This is subject to change depending on the number of IB students each year.

| 11 th Grade Term 1 | 11 th Grade Term 2 | 12 th Grade Term 1 | 12 th Grade Term 2 |
|---|-------------------------------|---|-------------------------------|
| IB History HL blocked with IB English HL (both terms) | | IB History HL blocked with IB English HL (both terms) | |
| IB Biology HL | IB Math SL | TOK blocked with Economics | Elective |
| Spanish SL or French SL (both terms) | | SL course #6 (Visual Art, Film, Dance, Music, Geography, Economics, Business, or Science) | |
| Elective | TOK blocked with Government | IB Biology HL | IB Math SL |

International Baccalaureate Program Courses

Students pursuing the IB Diploma at OHS fulfill all California and District requirements and can graduate with a diploma from IB and Oakmont. Ninth and Tenth grade students who wish to participate in the diploma program follow a preparatory pathway of courses and should apply for the program as soon as they can. An alternative to the full diploma program allows students to take one or more IB tests for Certificate recognition.

| Course Title | Grade Level | Course # | UC/CSU | Course Offered |
|----------------------------------|-------------|----------|--------|----------------|
| Language A | | | | |
| IB English (Literature) HL 1 | 11 | 204512 | Yes | Year Long |
| IB English (Literature) HL 2 | 12 | 204522 | Yes | Year Long |
| Language B | | | | |
| IB <i>ab initio</i> French SL 1 | 11 | | Yes | Semester |
| IB <i>ab initio</i> French SL 2 | 12 | | Yes | Semester |
| IB French SL 1 | 11-12 | 258114 | Yes | Semester |
| IB French SL 2 | 11-12 | 258124 | Yes | Semester |
| IB French HL 1 | 11 | | Yes | Semester |
| IB French HL 2 | 12 | | Yes | Semester |
| IB <i>ab initio</i> Spanish SL 1 | 11 | | Yes | Semester |
| IB <i>ab initio</i> Spanish SL 2 | 12 | | Yes | Semester |
| IB Spanish SL 1 | 11-12 | 258314 | Yes | Semester |
| IB Spanish SL 2 | 11-12 | 256324 | Yes | Semester |
| IB Spanish HL 1 | 11 | 258334 | Yes | Semester |
| IB Spanish HL 2 | 12 | 258344 | Yes | Semester |
| Individuals and Societies | | | | |
| IB History of Americas HL 1 | 11 | 659112 | Yes | Year Long |
| IB History of Americas HL 2 | 12 | 659122 | Yes | Year Long |
| IB Geography SL 1 | 11-12 | 651024 | Yes | Semester |
| IB Geography SL 2 | 11-12 | 651034 | Yes | Semester |
| IB Geography HL 1 | 11 | 651044 | Yes | Semester |
| IB Geography HL 2 | 12 | | Yes | Semester |
| IB Business and Management SL 1 | 11-12 | Pending | Yes | Semester |
| IB Business and Management SL 2 | 11-12 | Pending | Yes | Semester |
| Experimental Sciences | | | | |
| IB Biology SL 1 | 11 | | Yes | Semester |
| IB Biology SL 2 | 12 | | Yes | Semester |
| IB Biology HL 1 | 11 | 610214 | Yes | Semester |
| IB Biology HL 2 | 12 | 610224 | Yes | Semester |
| IB Design Technology SL 1 | 11-12 | 351624 | Yes | Semester |
| IB Design Technology SL 2 | 11-12 | 351634 | Yes | Semester |
| IB Physics SL 1 | 11-12 | | Yes | Semester |
| IB Physics SL 2 | 11-12 | | Yes | Semester |
| IB Physics HL 1 | 11-12 | | Yes | Semester |
| IB Physics HL 2 | 11-12 | | Yes | Semester |
| Math | | | | |
| IB Mathematics SL 1 | 11 | 407614 | Yes | Semester |
| IB Mathematics SL 2 | 12 | 407624 | Yes | Semester |
| IB Mathematics HL 1 | 11 | 407734 | Yes | Semester |

| | | | | |
|---------------------------------|-------|---------|-----|-----------------|
| IB Mathematics HL 2 | 12 | 407744 | Yes | Semester |
| IB Mathematical Studies SL 1 | 11 | 407714 | Yes | Semester |
| IB Mathematical Studies SL 2 | 12 | 407724 | Yes | Semester |
| The Arts | | | | |
| IB Dance SL 1 | 11-12 | Pending | Yes | Semester |
| IB Dance SL 2 | 11-12 | Pending | Yes | Semester |
| IB Dance HL 1 | 11 | Pending | Yes | Semester |
| IB Dance HL 2 | 12 | Pending | Yes | Semester |
| IB Film SL 1 | 11-12 | | Yes | Semester |
| IB Film SL 2 | 11-12 | | Yes | Semester |
| IB Film HL 1 | 11 | | Yes | Semester |
| IB Film HL 2 | 12 | | Yes | Semester |
| IB Music SL 1 | 11-12 | Pending | Yes | Semester |
| IB Music SL 2 | 11-12 | Pending | Yes | Semester |
| IB Music HL 1 | 11 | Pending | Yes | Semester |
| IB Music HL 2 | 12 | Pending | Yes | Semester |
| IB Visual Arts SL 1 | 11-12 | 163514 | Yes | Semester |
| IB Visual Arts SL 2 | 11-12 | 163524 | Yes | Semester |
| IB Visual Arts HL 1 | 11 | | Yes | Semester |
| IB Visual Arts HL 2 | 12 | 163544 | Yes | Semester |
| Diploma Required Courses | | | | |
| IB Theory of Knowledge 1 | 11 | 163554 | Yes | Spring Semester |
| IB Theory of Knowledge 2 | 12 | 163564 | Yes | Fall Semester |

All IB courses and their prerequisites must be passed with at least a grade of a C. Students will not be able to continue to the “2” course for IB if a grade of C is not achieved in the “1” course.

IB English (Literature) HL 1

Grade 11

Requirement: Students must enroll in the 11th and 12th grade courses for the full 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: Honors English 10 or equivalent

The purpose of this course is to immerse students in all aspects of literary study. Students can expect an intensive study of novels, plays, essays, short stories and poetry; many of the works represent selections from World Literature. Students will be asked to produce both written and oral analysis of works studied. They will be asked to incorporate literary history and criticism into their analysis of text.

IB English (Literature) HL 2

Grade 12

Requirement: Students must enroll in the 11th and 12th grade courses for the full 20 credits. Students must take the IB exam at the end of the course

Prerequisite: IB English HL 1

This course is a continuation of IB English HL 1.

IB French SL 1 or HL1

Grade 11-12

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.

Prerequisite: French 3 or equivalent. Students must be a full diploma or certificate candidate in the IB program.

Students will develop a higher degree of proficiency in listening, speaking, reading and writing the language. Teaching of an appropriate range of grammatical structure will be integrated with the study of themes and texts and acquisition of skills.

IB French SL 2 or HL 2**Grade 11-12**

Prerequisite: IB French SL or HL 1

This course is a continuation of IB French SL 1.

IB Spanish SL 1 or HL 1**Grade 11-12**

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.**Prerequisite:** Spanish 3 or equivalent. Students must be a full diploma or certificate candidate in the IB program

Students will develop a higher degree of proficiency in listening, speaking, reading and writing the language.

Teaching of an appropriate range of grammatical structure will be integrated with the study of themes and texts and acquisition of skills.

IB Spanish SL 1 or HL 2**Grade 11-12**

Prerequisite: IB Spanish SL or HL 1

This course is a continuation of IB Spanish SL or HL 1.

IB *ab initio* Spanish or French SL 1**Grade 11**

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.**Prerequisite:** Spanish 1 or French 1 or equivalent. Students must be a full diploma or certificate candidate in the IB program

This course requires students to complete French 1 at a grade of a C or better. This course is designed for students who have the basic level 1 of French and wish to study further, but were unable to complete the level 2 and 3 prerequisite for French SL. Students will be tested by IB in reading, writing, and speaking at the equivalent of a level 2 and 3 French student.

IB *ab initio* Spanish or French SL 2**Grade 12**

Prerequisite: IB *ab initio* Spanish or French SL 1

This course is a continuation of IB SL 1.

IB History of the Americas HL 1**Grade 11**

Requirement: Students must enroll in the HL 1 and HL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.**Prerequisite:** AP European History or equivalent. Students must be a full diploma or certificate candidate in the IB program.

This course is designed to meet academic Individuals and Societies requirements of the International Baccalaureate Program and the US History Requirement. Students are provided with an introduction to the nature of history as a discipline as they study its increasingly international dimension. This course is a study of North American, Central American, and South American History.

IB History of the Americas HL 2**Grade 12**

Prerequisite: IB History of Americas HL 1

This course is a continuation of IB History of the Americas HL 1.

Note: Students will receive US History graduation requirement credit upon completion of History of Americas HL 2.

IB Business and Management SL1 or HL 1

Grade 11-12

Requirement: Students must enroll in the SL/HL 1 and SL /HL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.

Prerequisite: Students must be a full diploma or certificate candidate in the IB program.

The Diploma Programme business and management course is designed to develop an understanding of business theory, as well as an ability to apply business principles, practices and skills. The application of tools and techniques of analysis facilitates an appreciation of complex business activities. The course considers the diverse range of business organizations and activities and the cultural and economic context in which business operates. Emphasis is placed on strategic decision-making and the day-to-day business functions of marketing, production, human resource management and finance. Links between the topics are central to the course, and this integration promotes a holistic overview of business activity.

The business and management course aims to help students understand the implications of business activity in a global market. It is designed to give students an international perspective of business and to promote their appreciation of cultural diversity through the study of topics like international marketing, human resource management, growth and business strategy.

IB Business and Management SL or HL 2

Grade 11-12

Prerequisite: IB Business Management SL 1 or HL 1

This course is a continuation of IB Business Management SL1/ HL 1.

IB Economics SL1 or HL 1

Grade 11-12

Requirement: Students must enroll in the SL/HL 1 and SL /HL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.

Prerequisite: Students must be a full diploma or certificate candidate in the IB program.

Students will develop global perspectives and national perspectives in the field of economics. The study of economics is essentially about the concept of scarcity and the problem of resource allocation. Students will study macroeconomics, microeconomics, international economics and development economics. Upon completion of the course, students will be expected to: have an understanding and knowledge of economic concepts and theories; apply economic theory to a range of circumstances and a variety of situations; analyze information through the use of economic concepts and theories; evaluate concepts and theories from different economic perspectives.

IB Economics SL or HL 2

Grade 11-12

Prerequisite: IB Economics SL 1 or HL 1

This course is a continuation of IB Economics SL1/ HL 1.

IB Geography SL 1 or HL 1

Grade 11-12

Requirement: Students must enroll in the SL/HL 1 and SL /HL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.

Prerequisite: Students must be a full diploma or certificate candidate in the IB program.

Students will develop global perspectives and sense of world interdependence. Using the methodologies and techniques of geographical inquiry, students will engage in systematic and critical study of interrelationships among diverse human activities and behaviors; physical, political, economic and social environments; and the history and development of social and cultural institutions. Students will expand their concern for the quality of the environment and appreciate the relevance of geography in analyzing contemporary world issues.

IB Geography SL or HL 2

Grade 11-12

Prerequisite: IB Geography SL 1 or HL 1

This course is a continuation of IB Geography SL1/ HL 1.

IB Biology SL or HL 1

Grade 11

Requirement: Students must enroll in the 11th and 12th grade courses for the full 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: CP Biology and H Chemistry or H Physics or equivalent.

Students will learn the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of Biology. Laboratory experiences and selected investigations encourage higher order thinking skills, formulation of hypotheses, and generation of new ideas.

IB Biology SL or HL 2

Grade 12

Prerequisite: IB Biology HL 1

This course is a continuation of IB Biology SL or HL 1.

IB Design Technology SL or HL 1

Grade 11-12

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: Students must be a full diploma or certificate candidate in the IB program.

The course will introduce students to how computer-based technologies have transformed the nature of the design and manufacture of products. This will be accomplished by starting with the study of Computer Aided Drafting, 3D solid modeling, and the development of Computer Aided Manufacturing (CAM). Students will see first hand how vital these skills are in the modern manufacturing world. Students enrolled in this course will gain a comprehensive knowledge of the design process from design conception to the final manufactured product. This will be accomplished by using the latest technology available in the areas of Computer Aided Drafting (CAD) and Computer Aided Manufacturing (CAM).

IB Design Technology SL or HL 2

Grade 11-12

Prerequisite: IB Design Technology SL or HL 1.

This course is a continuation of IB Design Technology SL 1.

IB Physics SL or HL 1

Grade 11

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course.

Prerequisite: CP Biology and H Chemistry or equivalent. Students are discouraged from taking Honors Physics before as some activities will overlap the courses.

Students who have a strong background in math and science will be given the opportunity to explore logic and philosophy of modern physical theory. The course includes application of algebra, geometry and trigonometry to the fields of kinetic theory, classical mechanics, waves, electricity and magnetism, atomic and nuclear structure, medical physics, and electromagnetic waves.

IB Physics SL or HL 2

Grade 12

This course is a continuation of IB Physics SL 1.

Prerequisite: IB Physics SL or HL 1

IB Mathematical Studies SL 1

Grade 11

Requirement: Students must enroll SL 1 and SL 2 and 12th grade courses for the full 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: Algebra 2 or equivalent.

Students will study topics in algebra, sets, logic and probability, functions, geometry and trigonometry, statistics, differential calculus, and financial mathematics. Students will learn how to explain and write mathematically and explore real-world application problems of mathematics. This course is intended for IB students who are receiving Cs in their Algebra and Geometry classes.

IB Mathematical Studies SL 2

Grade 12

Prerequisite: IB Mathematical Studies SL 1

This course is a continuation of IB Mathematical Studies SL 1.

IB Mathematics SL 1

Grade 11

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: Algebra 2 or equivalent.

Students will study the properties of graphs of polynomials, rational, exponential, logarithmic and trigonometric functions, properties of elementary functions, including trigonometry and logarithms, statistical analysis, and college-level differential and integral calculus. Students will learn how to explain and write mathematically and explore real-world application problems of mathematics.

IB Mathematics SL 2

Grade 12

Prerequisite: IB Mathematics SL 1

This course is a continuation of IB SL 1.

IB Mathematics HL 1

Grade 11

Requirement: Students must enroll in the 11th and 12th grade courses for the full 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: Teacher approval required. Students must complete Algebra 2 in the 9th grade and take IB Math SL 1 in the 10th grade.

This course is for students with a good background in mathematics and who are competent in a range of analytical and technical skills. Most students will be expecting to 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 with its problems. Students will study algebra, functions, trigonometry, matrices, vectors, statistics and probability, calculus, and series and differential equations.

IB Mathematics HL 2

Grade 12

Prerequisite: IB Mathematics HL 1

This course is a continuation of IB HL 1.

IB Dance SL1 or HL 1 (pending district approval)**Grade 11-12**

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course. Students taking Dance HL must take it both the 11th and 12th grade years.

Prerequisite: Prior dance experience is not mandatory at SL, it is highly recommended. At HL it is required. Students need to work with the instructor on proper placement into SL or HL.

Dance is a unique medium for learning about self and the world. It is one essential component of artistic, aesthetic and cultural education, and develops creative potential through physical expression. In dance, the integration of body, mind and spirit helps participants learn skills that are transferable to other disciplines and to their daily lives.

Consistent with the educational philosophy of the IB, the Diploma Programme dance curriculum aims for a holistic approach to dance, and embraces a variety of dance traditions and dance cultures—past, present and looking towards the future. Performance, creative and analytical skills are mutually developed and valued whether the students are writing papers or creating/performing dances. The curriculum provides students with a liberal arts orientation to dance. This orientation facilitates the development of students who may become choreographers, dance scholars, performers or those, more broadly, who seek life enrichment through dance.

IB Dance SL or HL 2**Grade 12**

Prerequisite: IB Dance SL or HL 1

This course is a continuation of IB SL or HL 1.

IB Film SL1 or HL 1**Grade 11-12**

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course. Students taking Film HL must take it both the 11th and 12th grade years.

Prerequisite: It is highly suggested that a student should take at least a graphic design and/or media course prior to enrollment in IB Film SL. For Film HL, students must have previous film background. Students need to work with the instructor on proper placement into SL or HL.

Film is both a powerful communication medium and an art form. The Diploma Programme film course aims to develop students' skills so that they become adept in both interpreting and making film texts. Through the study and analysis of film texts and exercises in film-making, the Diploma Programme film course explores film history, theory and socio-economic background. The course develops students' critical abilities, enabling them to appreciate the multiplicity of cultural and historical perspectives in film. To achieve an international understanding within the world of film, students are taught to consider film texts, theories and ideas from the points of view of different individuals, nations and cultures.

IB Film SL or HL 2**Grade 12**

Prerequisite: IB Film SL or HL 1

This course is a continuation of IB SL or HL 1.

IB Music SL1 or HL 1 (pending district approval)

Grade 11-12

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course. Students taking Music HL must take it both the 11th and 12th grade years.

Prerequisite: Prior music experience is not mandatory at SL, it is highly recommended. At HL it is required. Students need to work with the instructor on proper placement into SL or HL.

A vibrant musical education fosters curiosity and openness to both familiar and unfamiliar musical worlds. Through such a study of music we learn to hear relationships of pitch in sound, pattern in rhythm and unfolding sonic structures. Through participating in the study of music we are able to explore the similarities, differences and links in music from within our own culture and that of others across time. Informed and active musical engagement allows us to explore and discover relationships between lived human experience and specific sound combinations and technologies, thus informing us more fully of the world around us, and the nature of humanity.

The Diploma Programme music course provides an appropriate foundation for further study in music at university level or in music career pathways. It also provides an enriching and valuable course of study for students who may pursue other careers. This course also provides all students with the opportunity to engage in the world of music as lifelong participants.

IB Music SL or HL 2

Grade 12

Prerequisite: IB Music SL or HL 1

This course is a continuation of IB SL or HL 1.

IB Visual Arts SL1 or HL 1

Grade 11-12

Requirement: Students must enroll in the SL 1 and SL 2 courses for the full 20 units. Students must take the IB exam at the end of the course. Students taking Visual Arts HL must take it both the 11th and 12th grade years.

Prerequisite: Art 1 highly recommended.

Students will cover studio and research components to visual arts. This is an in-depth study of the visual arts where students produce a college-quality portfolio and develop aesthetic discrimination of applied art inclusive or artistic perception, creative expression, historical and cultural context, and aesthetic valuing.

IB Visual Arts SL 2 or HL 2

Grade 11-12

Prerequisite: IB Visual Arts SL 1 or HL 1

This course is a continuation of IB Visual Arts SL1/ HL 1.

IB Theory of Knowledge 1

Grade 11

Requirement: Students must enroll in Theory of Knowledge 2 to complete the 20 credits. Students must take the IB exam at the end of the course.

Prerequisite: Student must be enrolled in one IB course

This is a class which challenges students to reflect critically on diverse ways of knowing and areas of knowledge and to consider the role knowledge plays in a global society. Students will be expected to complete extensive reading assignments, writing prompts, class discussions and upon completion of the 2nd TOK course, students will submit a paper and presentation on a Theory of Knowledge topic.

IB Theory of Knowledge 2

Grade 12

Requirement: Student must be enrolled in at least one IB course.

Prerequisite: Theory of Knowledge 1.

This course is a continuation of IB TOK 1.