

Rockville HS – International Baccalaureate (IB) Program

IB Diploma Students

1. Please make sure to register for the classes that you discussed with Mrs. Ainsworth during your IB meeting
2. If you want to make a change be sure to discuss it with Mrs. Ainsworth
3. All juniors must register for IB Theory of Knowledge 1 /Extended Essay A /B
4. All seniors must register for Theory of Knowledge ½
5. All Juniors and Seniors must take IB English as an HL. Juniors will take IB Language and Literature 1 and Seniors will take IB English Language and Literature 2.
6. All IB students must take 3 HL (2 year classes) and 3 SL (one year) classes over the course of their junior and senior years
7. There is a fee to take IB exams

Sample IB Junior Schedule

IB English Language and Literature 1 A and B
IB Theory of Knowledge 1/ Extended Essay A/B
World Language Course (appropriate level)
IB Math SL or HL
IB HL course *
IB HL course *
Elective or IB SL course

* You must take a total of 3 HL classes so if World Language or Math will be one of your HL's you will not need both of these slots for HL classes *

Sample IB Senior Schedule

IB English Language and Literature 2 A and B
IB Theory of Knowledge ½
IB Math
World Language Course (if you did not test last year)
IB HL Course *
IB HL Course *
Elective or IB SL course (if needed)

*If you are taking World Language as an HL you will not need these slots for HL classes *

IB Career Program Students

1. Please make sure you register for the IB classes that you discussed with Mrs. Ainsworth during your IB meeting.
2. If you want to make a change be sure to discuss it with Mrs. Ainsworth.
3. All Juniors must register for IB Personal and Professional Skills A and B
4. All Seniors must register for IB Personal and Professional Skills C and Research Project B second semester
5. All juniors must register for one (2 year) IB Course during their junior year which they will complete their senior year. All students must take one SL course as well. Students may take more than two IB classes if they want to.
6. All Students must complete a career pathway.
7. There is a fee to take IB exams

Career Pathways at Rockville High School

Project Lead the Way (5 courses)

Principles of Engineering
Introduction to Engineering Design
Digital Electronics

Aerospace Engineering
Engineering Design and Development

Computer Science (2 or 4 course pathway)

Foundations of Computer Science
Programming 1
AP Computer Programming 2

AP Computer Science Principles
IB Computer Science 1

- The two course pathway includes Foundations of Computer Science and AP Computer Science Principles
- The four course pathway includes all of the courses listed above except for Foundations of Computer Science

Child Development Associate Preschool Program (4 courses):

Child Growth and Development
Learning Environment for Preschoolers

Advanced Guided Research Education
Adv. Intern Education

Hospitality Management (2 courses and an internship)

International Cultures and Cuisines
Culinary Essentials

Hospitality Internship (2 credits)

Broadcast Journalism (2 credits)

Broadcast Journalism 1

Broadcast Journalism 2

Sample IB Junior year schedule with a Career Pathway

IB PPS
Career Pathway Course
IB HL course
IB SL course (this can be done senior year or junior year)

Sample IB Senior year schedule with a Career Pathway

IB PPS semester A /Research Project semester B
IB HL course
IB SL course (if not taken during the junior year)
Career Pathway course

For any other options and questions please see Ms. Laurie Ainsworth, IB Coordinator, for guidance and information.

Rockville HS – IB Programme

Course Code	Course Title	GR	Description
<i>TOK and PPS - All IB students are required to take a course which involves the development of critical thinking skills. Diploma students take TOK and Career Students take PPS</i>			
2011/2012	IB Theory of Knowledge (TOK) 1 Essay A/B	11	Introduction to sources, varieties and systems of knowledge for IB Diploma Students
2007/2008	IB Theory of Knowledge (TOK) 1/2	12	Introduction to sources, varieties and systems of knowledge for IB Diploma Students
4891/4892	Personal and Professional Skills (PPS)	11	Introduction to organizational, collaborative, problem-solving, thinking and information literacy skills for IB Career Program Students
4893/2982	Personal and Professional Skills (PPS) - Research Project	12	Introduction to organizational, collaborative, problem-solving, thinking and information literacy skills for IB Career Program Students. Note that second semester is called Research Project.
<i>IB English - All Diploma students must take IB English as an HL. Career Students may select this course.</i>			
1070/1071	IB English Language and Literature 1 A/B Prerequisite English 10	11	This first year of a required two-year sequence includes in-depth analysis of both literary and nonliterary texts. One of three papers for the external assessment is written, and one of two oral assessments is completed for a portion of the IB score. All work is designed to prepare students for both the oral and written portions of the higher-level IB English Language and Literature exam.
1072/1073	IB English Language and Literature 2 A/B Prerequisite IB English 1	12	This course completes the requirements for the higher-level IB English Language and Literature exam. The aim of the course is the development of an understanding of “critical literacy” in students. Students produce a critical response evaluating aspects of text, context, and meaning, and demonstrate an ability to write a balanced, comparative analysis.
<i>IB Math Courses - All Diploma students must take one IB math class. Career students may select one of these courses.</i>			
3444/3445	IB Approaches, Statistics and Calculus (Year 1 - SL) Prerequisite Alg 2 (H)	11	This course explores numeric, algebraic, geometric, and trigonometric functions through the lens of practical applications of math in a data-rich and technology driven world. Application and problem solving skills are developed through the exploration of these functions as well as statistics, probability, and differential calculus.
3440/3441	IB Analysis, Statistics and Calculus (Year 1 - HL) Prerequisite Algebra 2	11	This course utilizes numeric, algebraic, geometric, and trigonometric functions, as well as statistics, probability, and calculus to develop mathematical thinking skills. Students explore real and abstract theories/applications to strengthen mathematical modelling and problem solving skills.
3446/3447	IB Approaches, Statistics and Calculus (Year 2 -SL) Prerequisite Year 1 - SL	12	HL students study the same topics outlined in the IB Mathematics Applications SL Course description with significant time dedicated to the teaching to advanced techniques in statistics, probability, and both differential & integral calculus. NEW COURSE OFFERING

3442/3443	IB Analysis, Statistics and Calculus (Year 2 - HL) Prerequisite Year 1 - HL	12	This course is further develops the mathematical and problem solving skills developed in IB Math Analysis SL. Further attention is paid to advanced trigonometric topics, statistical analysis, as well as integrable calculus. NEW COURSE OFFERING
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IB Science Courses - All Diploma Students must take one of these courses and may take additional courses if desired. Career students may select any of these courses.

3625/3626	IB Biology HL A/B Prerequisite Chemistry Juniors Only	11	IB Biology offers extensive laboratory experiences and emphasizes critical analysis of scientific information; evaluation of biological knowledge with respect to those problems facing mankind at present, and synthesis of biological information from different areas of the field. Topics include biochemistry, cytology, molecular genetics and heredity and variation. Student prepare for the higher-level IB Biology exam. This course can only be taken over two years, year 1 as a junior and year 2 as a senior
3627/3628	IB Biology 2 HL A/B Prerequisite IB Biology HL year 1 Seniors Only	12	This course covers the same topics as in IB Biology HL but it is the 2 nd Biology course in the IB matrix.
3746/3747	IB Chemistry A/B Prerequisite Chemistry (H)	11-12	This course is a study of the materials of our environment, their properties, and the ways in which they react with each other. Topics of study include stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, organic chemistry, and optional additional studies. This course prepares students for the IB standard-level Chemistry examination.
3844/3845	IB Physics 1 A/B	11-12	Students investigate physical laws and theories, relationships of physical phenomena, and interrelationships of physics and other fields of human endeavor. Some topics include vector mathematics, kinematics, dynamics, energy, thermodynamics, electricity and magnetism, and nuclear structure and energy. Additional focus is placed on the social and historical perspective in which physical ideas have developed throughout the world. This course prepares students for the IB standard-level Physics examination
3757/3758	IB Environmental Systems A/B	11-12	Students learn the scientific principles, concepts, and methodologies required to understand the environment, evaluate the relative risks associated with environmental problems, and examine alternative solutions for resolving and/or preventing them. Laboratory and field investigations complement the classroom portion of the program. This course prepares students for the IB standard-level environmental systems exams.
2818/2819	IB Computer Science 1	11-12	This course develops an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. During the course, students will develop computational solutions. This will involve the ability to identify a problem or unanswered question, design, prototype and test a proposed solution, and liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments.

IB Social Studies Courses - All Diploma Students must take one of these courses and may take additional courses if desired. Career students may select any of these courses.

2230/2231	IB History 1 A/B Juniors Only	11	This course surveys European and World History from 1750-1900 and is the first year of a two year course of study that prepares students for the IB History exam.
2403/2404	IB History 2 A/B Prerequisite History 1 IB Seniors Only	12	This course is a detailed study of 20 th century history including the rise of single party states and causes practices and effects of war. Students are prepared for the IB History HL exam
2232/2233	IB Psychology A/B	11- 12	Focuses on the nature of human beings and the methods of psychological inquiry. Students study human behavior from a cognitive, behavioral and psychodynamic perspective
2242/2243	IB Social and Cultural Anthropology	11- 12	Social and cultural anthropology is the comparative study of culture and human societies. Anthropologists seek an understanding of humankind in all its diversity. Social and cultural anthropology places special emphasis on comparative perspectives that challenge cultural assumptions.

IB World Language Courses - All Diploma students must take one IB World Language class. Career students may select one of these courses.

1753/1754	IB Spanish 5 Prerequisite Spanish 4 (H) or Spanish for Spanish Speakers 3	11- 12	An advanced Spanish communications course where the focus is to strengthen communication skills and awareness of the culture and everyday life of Spanish speakers. Preparation for the IB exam.
1755/1756	IB Spanish 6 Prerequisite IB Spanish 5	11- 12	Continuation of the advanced Spanish communications course using everyday situations and media sources to enhance their communication skills. IB exam preparation
1660/1664	IB Spanish 7 (HL) Prerequisite IB Spanish 6/ IB Spanish 5 Seniors Only	11- 12	Prepares students to take the HL IB Spanish exam by continuing with communication skills and including famous Spanish literature.
1627/1628	IB French 5 Prerequisite French 4 (H)	11- 12	An advanced French communications course where the focus is to strengthen communication skills and awareness of the culture and everyday life of French speakers. Preparation for the IB exam
1629/1630	IB French 6 Prerequisite IB French 5	11- 12	Continuation of the advanced French communications course using everyday situations and media sources to enhance their communication skills. IB exam preparation
1658/1662	IB French 7 Prerequisite French 6 Seniors Only	11- 12	Continuation of the advanced French communications course using everyday situations and media sources to enhance their communication skills. HL exam preparation.

IB Arts Courses - Diploma and Career students may take one of these classes. Diploma students who do not take one of the Arts classes must take a second Social Studies or Science Class instead.

6102/6103	IB Visual Arts 1 A/B (SL/HL)	11-12	Students develop their aesthetic, imaginative, and creative faculties. Emphasis is on visual awareness, multicultural expression, and historical references. An expressive verbal and visual journal, demonstrating the interrelationship between the student's personal research and studio work, is required by the standard-level IB Art and Design assessment.
6107/6108	IB Visual Arts 2 A/B (HL)	12	Students develop their aesthetic, imaginative, and creative faculties. Emphasis is on visual awareness, multicultural expression, and historical references. An expressive verbal and visual journal, demonstrating the interrelationship between the student's personal research and studio work, is required by the standard-level IB Art and Design assessment.
8071/8072	IB Theater 1 A/B	11-12	IB Theatre explores a range of creative works in a global context and emphasizes practical production by the student. Assessments include a practical play analysis, a reflective and analytical portfolio of their theatrical work, and research that applies theoretical and historical concepts to a contemporary production. Students are prepared for the standard-level IB examination. Writing and thinking skills are reinforced through journaling.

For any other options and questions please see Ms. Laurie Ainsworth, IB Coordinator, for guidance and information.