

COURSE DESCRIPTIONS

International Baccalaureate

Full Diploma Programme



The IB Programme at DMHS



Authorized by the International Baccalaureate Organization to administer the International Diploma Programme, Downtown Magnets High School (DMHS) offers its students a truly unique educational opportunity, participating in one of the most highly regarded academic programs in the world to earn a second diploma, the International Baccalaureate Diploma. The programme involves rigorous academic studies and promotes international mindedness and critical thinking. Students are encouraged to ask challenging questions, learn how to learn, develop a strong sense of their own identity and culture, and develop the ability to communicate with people from other cultures.

University Recognition

The Diploma Program has become a leading, internationally recognized pre-university qualification. A student who satisfies the requirements for the Diploma has demonstrated independent study skills, developed a broad range of academic skills, studied at least three disciplines in depth, engaged with interdisciplinary ideas, reflected on the nature of human knowledge in an international context and taken part in social, physical and creative pursuits beyond the classroom.

The two-year program is in grades 11 and 12 with a Pre-IB Program in grades 9 and 10. The Diploma Program is shaped by a desire to provide motivated students an education that is:

Pragmatic A nationally and internationally recognized course of study that provides academic, professional and personal development of the highest caliber.

Idealistic
through

understanding and respect.

Pedagogical Broad-based and developmental, promoting skills of critical and creative thinking while instilling the value of life-long learning.

The Diploma Program Curriculum is concerned with the whole educational experience of each student. The Diploma Program framework and its supporting structures and principles are designed to ensure that each student is exposed to a broad and balanced curriculum

A Focus on the Liberal Arts

Students must study six courses. These include two language courses (groups 1 & 2), one course from individuals and societies (group 3), one experimental science (group 4), one mathematics course (group 5), and one course in the arts (group 6).

A Unified Learning Experience

Students will study three subjects at the higher level (HL) and the other three at the standard level (SL). The Diploma Program is a discipline-based course of study. Each academic discipline provides its own methodological framework that students understand and use. This understanding is essential in order to provide a deep appreciation of the nature of an academic discipline as well as a solid foundation for future university-level work. However, students are also expected to make connections between different academic disciplines. For this reason, at the heart of the diploma Program is the Learner Profile, surrounded by the program core requirements. Concurrency of learning in the Diploma Program is expected as it provides one important mechanism to support interdisciplinary learning.

The IB Core

IB Theory of Knowledge (ToK): a critical thinking course in which IB students analyze knowledge and information with regard to source, intellectual bias, assumptive basis, proof, interpretation, social construct, opposition, and rationality. The ToK student examines the philosophical framework of each academic discipline while learning to reflect critically and logically on ideas originating in the other courses. Students begin this course in their 9th grade Advisory, continue in their 10th grade advisory and then as a 7th period, one day a week throughout their junior year.

The Extended Essay (EE): is an in-depth study of a limited topic chosen from one of the six groups of the IB curriculum. It is designed to provide the candidate the opportunity to engage in independent research. Students are encouraged to pursue an area of special interest to them. In the junior year, the student decides on a topic and seeks the sponsorship of a faculty advisor. Students are expected to begin work on the project during the junior year and the summer between the junior and senior years under the supervision of an advisor. The Extended Essay time functions as a 7th period, one day a week in their senior year.

Creativity Action Service (CAS): is an integral element of the IB curriculum and for successful award of the diploma. IB Diploma students design and complete approximately 150 CAS hours - 75 hours for community service, 50 hours for a personal activity, and 25 hours for a creative activity. While the Creativity and Action components of CAS are largely met through curricular and extracurricular programs, the Service component is the responsibility of the student. The services will be rendered individually and in groups. Students may begin to

accumulate CAS hours the summer after tenth grade and must complete all requirements by January of their senior year.

Examinations and Assessments

A wide variety of approaches to assessment are used to provide students with suitable contexts in which to demonstrate their capabilities. Internal assessments—language exercises, portfolios, presentations, laboratory work, performances—aim to evaluate student achievement against objectives that do not end themselves to external written examinations or tests. These are administered and graded by the classroom teacher and monitored by the IB organization. Teachers are sent feedback and in doing so, maintain a high and consistent standard of instruction. Standardized examinations, taken at the end of the course of study, are externally graded. Objective tests comprising a set of multiple-choice questions (similar to Advanced Placement Exams) are occasionally used as well as short-answer questions, structured questions, extended-response questions, essay questions, data-analysis questions, text-analysis questions, and case-study questions.

Each subject is graded on a scale from one point (lowest) to seven points (highest), with three possible points for performance in the Theory of Knowledge and the Extended Essay. Therefore, forty-five points are possible. The minimum score needed to gain the Diploma is twenty-four points.

IB Subject Descriptions

Group 1: Language A – IB English Language & Literature HL – Grades 11 and 12

Students develop their knowledge and understanding of both language and literature through the study of literary and non-fiction texts. Students are challenged to think critically about the different interactions between text, audience and purpose and understand how language, culture and context determine the way in which meaning is constructed. Through the study of varied texts, students will gain a broad understanding of the role of language in peoples' lives, in the media and in the arts. This two-year course is divided into four parts:

1. Language in cultural context
2. Language and mass communication
3. Literature – texts and contexts
4. Literature – critical study

Students will think critically, work independently, and take an active role in class discussion. Under the teacher’s guidance, students may make decisions on the form of tasks, undertake research projects, generate text materials and participate in online learning environments. In addition to IB requirements, students will complete a variety of written and oral assignments.

9th	10th	11th	12th
Pre-IB: Honors English	Pre IB: Honors English	English IB HL 1*	English IB HL 2*

Pre-IB Honors English courses will prepare students for IB English through the following activities: active reading of highly advanced and varied texts for what they say explicitly as well as the logical inferences that can be drawn, analysis of literature and informational texts from varied literary periods to examine text craft and structure, elements of literature, arguments and claims supported by textual evidence, power and impact of language, influence of history, culture, and setting on language. Students will also engage in advanced writing for varied purposes, develop and support arguments, craft coherent texts, respond to literature and regularly engage in the research process. Students in Honors English 10 are required to write a 5-6 page research essay as preparation for the IB extended essay requirement.

Group 2: Language B - IB Spanish SL or IB Mandarin SL

Students will achieve advanced competence in a second language to communicate effectively and in a culturally appropriate way, in a range of situations and contexts and for a variety of purposes. The course will also develop students’ ability to analyze a variety of written texts from a variety of sources. At the end of the course, students will improve their skills of three communication modes and intercultural understanding through the study of three required core area: communication and media, global issues, social technology.

9th	10th	11th	12th
Pre-IB: Spanish I or II	Pre-IB: Spanish II or III	AP/IB Spanish*	IB Spanish SL*
Pre-IB: Mandarin I	Pre-IB: Mandarin II	Pre-IB: Mandarin III	IB Mandarin SL*

To begin their second language development, students are placed at a learning level that meets their language backgrounds, abilities, and needs in Pre-IB Language courses. In grade 11, students take AP Spanish and begin studies in IB Spanish. Students may take the AP Spanish test in their junior year.

Group 3: Individuals and Societies – AP/IB History HL 1 & IB History of Americas HL 2

In the first year of this two-year course, students consider the foundations of the American economic and political systems by examining life and thought in colonial America, revolutionary ideology and war, the establishment of a new democratic republic, and the growing crisis over the issue of slavery and states rights that led to American Civil War and Reconstruction. Students then focus on 20th Century America's influence on world affairs through economic, political and social activities.

In their second year, students focus on modern world affairs by undertaking a critical investigation aimed at reconstruction and interpreting the major events of the 20th century in the US in comparison with other countries. There is an emphasis on the uses and limitations of a variety of types of source material; students develop an understanding of different interpretations of history and their roots. Specifically, students compare the causes, practices and effects of industrialization, the rise of democratic states and human civil rights movements throughout the world.

9 th	10 th	11 th	12 th
Pre IB: AP Art History or Pre IB: AP Human Geog.	Pre IB: AP World History*	AP/IB US History HL 1*	IB History HL 2*

To prepare students for the rigors of IB History, students will take AP Social Science courses in grades 9 and 11. Students may take the AP exams for each of these courses. Instruction in IB History HL 2 addresses the standards for American Government and Economics, therefore, AP/IB US History and IB History HL 2 fulfill graduation requirements for US History, American Government and Economics.

Group 4: Experimental Sciences – Honors Advanced Biology & IB Biology SL

IB Biology SL is a two-year life-science course that begins with Honors Advanced Biology in 11th grade and continues in 12th grade as IB Biology SL. Over two years, students' studies include Cell & Molecular Biology, Genetics, Ecology, Evolution and Biodiversity, and Human Physiology, and a minimum of 40 hours laboratory work in which students design their own experiments.

9 th	10 th	11 th	12 th
Pre-IB: Honors	Pre-IB: Chemistry	Honors Adv. Biology*	IB Biology SL

Biology			
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Students prepare for the rigors of IB Biology, beginning in grade 9 in which emphasis is placed on students developing critical thinking skills, collaboration, and scientific inquiry. Students will be introduced to the concept of biodiversity conservation and the evolutionary processes that lead to adaptations.

Building on this knowledge, in grade 10, students take chemistry in which great emphasis is placed on laboratory work and problem-solving skills, including gathering and presenting data from experimental work and the analysis and evaluation of these results. Chemistry, not only prepares students for IB Biology, but also fulfills student's physical science graduation requirement. Biology meets student's life-science graduation requirement.

Group 5: Mathematics – Math SL or Math Studies

Students will develop the concepts and reasoning skills necessary to contend with, communicate about, and collaborate on solving complex mathematics problems in both real world and abstract contexts. Depending on the level of math students enter DMHS, students will prepare to take either Math SL or Math Studies.

9th	10th	11th	12th
Pre-IB: Algebra I	Pre-IB: Geometry	Pre-IB: Algebra II	Math Studies
Pre-IB: Geometry	Pre-IB: Honors Adv. Math	Math SL	AP Calculus*

Math SL is a natural extension of the Algebra sequence at DMHS and should be attempted by students with a solid Algebra background. Algebraic concepts are studied in more detail and developed through analysis to a strong introduction to differential and integral calculus, without the same depth and rigor found in Calculus AB. Topics include number and algebra, functions and equations, circular functions and trigonometry, statistics and probability, and calculus. Students who are successful in Math SL are encourage to take AP Calculus their senior year.

IB Math Studies is designed to provide students of varied backgrounds and abilities with a realistic course that provides the skills to cope with the demands made by a technological society. Compulsory topics include number and algebra, sets and logic, geometry and trigonometry, statistics and probability, functions, and financial mathematics.

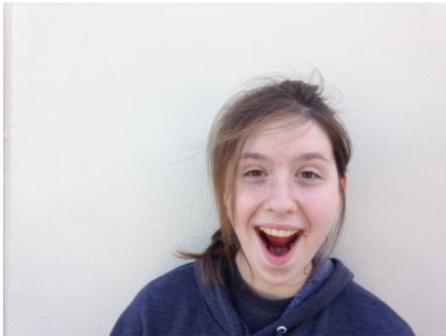
Group 6: Fine Arts – Film HL 1 & Film HL 2

A two year course in which students will develop the skills to achieve creative and critical independence in the knowledge, experience, and enjoyment of film. The aims are to promote an appreciation and understanding of film as a complex and unique art form; an ability to formulate ideas in filmic terms; and a knowledge of film making traditions of different cultures. Students will learn how film creates meaning and will gain skills to develop ideas through the various stages from conception to finished production. The course consists of three parts:

1. Textual Analysis – the detailed study of film sequences
2. Film History and Theory – film and film-making of more than one culture
3. Techniques and Organization of Production – planning and creating a film

9 th	10 th	11 th	12 th
Physical Education	Physical Education	IB Film HL 1*	IB Film HL 2*

Students fulfill their physical education requirements in grades 9 and 10 before beginning their studies in film in grades 10 and 11. IB film fulfills the graduation art requirement.



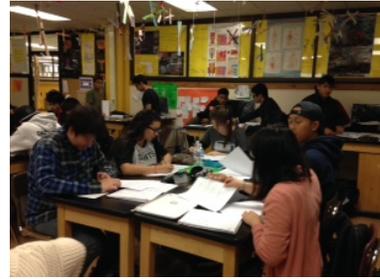
Creativity Action Service



IB Film



Theory of Knowledge



IB Biology



Extended Essay