



## The International Baccalaureate Magnet Diploma Program at Richard Montgomery High School

The International Baccalaureate Magnet Diploma Program (IB) at Richard Montgomery High School is a twenty-two-year-old program that combines the rigor and challenge of the IB curriculum with a competitive, countywide student selection process.

### STUDENT SELECTION

The IB Magnet Diploma Program at Richard Montgomery High School blends an intense two-year magnet preparatory program (grades 9 and 10) with the rigorous international standards of the full diploma program in grades 11 and 12. As the program at Richard Montgomery is a countywide magnet program, entrance is competitive. The IB at Richard Montgomery attracts many of the best students from Montgomery County, Maryland, a community of 931,000 outside of Washington, DC, with one of the finest public school systems in the nation. Academically exceptional and motivated students are offered entry to the program after a highly selective process that evaluates standardized admission test scores, a writing assessment, teacher recommendations, and academic grades. The selection of the Class of 2010 began in 2006 when over 800 students applied for admission; only 108 were accepted and enrolled.

### CLASSROOM EXPECTATIONS AND STUDENT SUCCESS—IB CLASS OF 2010

As a result of the selection process, classroom expectations and exam performance are substantially higher than that of comparable programs worldwide. Those who accept the challenge of IB at Richard Montgomery have chosen to pursue a course of study that is considerably more demanding than traditional high school honors classes, advanced placement classes, or non-magnet International Baccalaureate classes. For the May 2009 testing season, IB scores at Richard Montgomery exceeded worldwide averages in 24 subjects. Twelve subjects exceeded worldwide averages by a full point. Individual performance records should be considered in light of the extraordinary nature of the program and its students, who continue as academic standouts in college.

- For more than a decade, Richard Montgomery High School's IB Diploma Program has ranked among the most successful in the world.

96% of Richard Montgomery's IB candidates in 2009 earned the IB Diploma.  
99% of Richard Montgomery's IB candidates in 2008 earned the IB Diploma.  
(The average worldwide success rate is approximately 81%.)

- Total Number of IB Diploma Candidates, Class of 2010: 130
- Student performance on the IB exams reflects the high classroom expectations.  
197 IB Exams Taken in the Junior Year by the Class of 2010  
Score Summary: 7 = 9% 6 = 39% 5 = 35% 4 = 15% Below 4 = 3%
- Student performance on the Advanced Placement exams reflects the high classroom expectations.  
690 Advanced Placement Exams Taken Before the Senior Year by IB Students in the Class of 2010  
Score Summary: 5 = 39% 4 = 33% 3 = 18% Below 3 = 9%
- SAT Mean Scores for IB Students in the Class of 2009: 2140  
Verbal/Critical Reading: 700 Math: 710 Writing: 700
- National Merit Scholarship Program Semifinalists:  
28 IB Diploma Candidates, Class of 2010, are Merit Scholarship Semifinalists  
50 IB Diploma Candidates, Class of 2010, are Merit Scholarship Commended Students
- Maryland Distinguished Scholars (Achievement)—Awarded for Academic Excellence—IB Class of 2010  
Finalists: 13 Semifinalists: 6 Honorable Mention: 15
- Maryland Distinguished Scholars (Talent)—Awarded for Excellence in Music, Dance, and Visual Art—2010  
Finalist: 3 Semifinalist: 1 Honorable Mention: 1
- 2009 & 2008 Siemens Competition, Math: Science: Technology Regional Finalists
- Two IB alumni were named Rhodes Scholars in 2003 and 2004, and one IB alumnus was named a George Marshall Scholar in 2004.

[Course requirements on reverse side]

# IB Magnet Course of Study at Richard Montgomery High School

## THE FRESHMAN YEAR

All 9th grade magnet students are enrolled in a "Pre-IB" program including: English 9; French, Spanish, or Chinese levels 2 or 3; Government; Biology; and Geometry, Analysis and Applications of Functions (AAF), or IB Pre-Calculus. The accelerated speed of these courses allows time for in-depth analysis and sophisticated content more commonly associated with grade 11 and grade 12 high school honors and advanced placement courses. Non-magnet courses with similar titles at Richard Montgomery do not offer the same content. The magnet Government course prepares students for the AP U.S. Government exam. In May 2009 106 IB freshmen took the AP U.S. Government exam, and 81% earned a 4 or a 5.

## THE SOPHOMORE YEAR

All 10th grade magnet students continue the IB preparatory "Pre-IB" program including: English 10; French, Spanish, or Chinese levels 3 or 4; AP U.S. History; Chemistry; and AAF, IB Pre-Calculus, IB Math Studies (IB Pre-Calculus at a slightly reduced pace), AP Calculus AB, or AP Calculus BC. Prerequisites for IB electives begin in 10th grade. Art and Culture serves as a prerequisite for the demanding two-year sequence of IB Art and Design. AP Music Theory serves as a pre-requisite for IB Advanced Music. In May 2009 117 IB sophomores took the AP U.S. History exam, and 86% earned a 4 or a 5.

## THE JUNIOR YEAR

In 11th grade students begin preparing for their six IB exams, two of which may be taken in their junior year. Students must show strengths in college-level exams in five required disciplines (English, Foreign Language, Math, History, and Science) and one elective discipline (a second foreign language, a second science, Economics, Psychology, Theatre, Music, Computer Programming, or Art). Unlike signature and magnet programs that allow specialization in one or two disciplines, IB expects students to demonstrate cross-curricular strength, which creates an intensely rigorous program for all students. All students must complete at least level 5 of French, Spanish, or Chinese to be able to test in foreign language. (The highest level of French and Spanish is level 6; the highest level of Chinese is level 7.) Starting with the Class of 2007, all students must complete at least one Calculus course

to be able to test in math. (The highest level formal math class is Multivariable Calculus and Differential Equations, but an independent course of studies is available for students who complete Multivariable Calculus before their senior year.) Two or three IB exams must be taken at the Standard Level; three or four IB exams must be taken at the Higher Level in the senior year.

In addition, by fall of their senior year, all IB diploma candidates must complete an extended research essay of 3500–4000 words on a topic of their choice in one of the subjects of the IB curriculum. Also, all students must complete two years of Theory of Knowledge. This interdisciplinary course leads students to reflect on the bases of knowledge and experience, increase awareness of subjective and ideological biases, develop a personal mode of thought based on critical examination of evidence and argument, and formulate rational arguments. Students have the option of completing Theory of Knowledge 1 in a year-long course that blends work on the extended essay with Theory of Knowledge content. Finally, by spring of their senior year, all students must participate and reflect on Creativity, Action, and Service (CAS) activities. Participation in CAS activities occurs throughout their junior and senior years.

## THE SENIOR YEAR

The seniors who remain as full IB diploma candidates have demonstrated commendable motivation, determination, and academic achievement. All students complete work on their extended essays, their Theory of Knowledge and CAS requirements. Students prepare for their IB exams by completing required coursework in IB English (a two-year study which includes international literature) and IB History (a two-year study which focuses on European and Russian History). Students complete Higher Level coursework in one or two additional disciplines and complete coursework leading to additional Standard Level exams. Higher Level offerings include English, History, Foreign Language, Biology, Physics, Mathematics, Visual Arts, Computer Science, Music, and Theatre. Standard Level offerings include Foreign Language, Psychology, Economics, Chemistry, Physics, Environmental Systems, Mathematics, Math Studies, Music, and Theatre. Students who plan to test in Higher Level Mathematics must complete Multivariable Calculus and Differential Equations.