



Blair High School
IB Mathematical Studies SL
Year 2
Course Syllabus
 2016 - 2017



Course Description

The International Baccalaureate Diploma Program (IBDP) is a rigorous pre-university course of studies, leading to examinations that meet the needs of highly motivated secondary school students. The IB Mathematical Studies course is a rich and varied combination of mathematical topics that are designed to support students in their general education and offer the kinds of mathematics that are involved in many professions and walks of life that are not explicitly mathematical. The emphasis of this course is on developing students’ mathematical reasoning, enhancing students’ critical thinking abilities, solving mathematical problems embedded in a wide range of contexts, and using the graphing calculator effectively.

The IB Mathematical Studies course includes project work. Each student completes an Internal Assessment project during Year 2 of the course. The project is based on their own research and guided and supervised by the teacher. The project provides an opportunity for students to carry out a mathematical study of their choice using their own experience, knowledge and skills acquired during the course. It involves the collection or generation of data and its subsequent analysis. It is a written piece of work that is marked internally and a sample is moderated externally.

Topics Taught in IB Mathematical Studies SL

- Topic 1 Number and Algebra*
- Topic 2 **Descriptive Statistics**
- Topic 3 Logic, sets and probability*
- Topic 4 **Statistical Applications**
- Topic 5 **Geometry and Trigonometry**
- Topic 6 Mathematical Models*
- Topic 7 **Introduction to Differential Calculus**

* Topics taught in Year 1

Prerequisites: “C” or better in Algebra I, Geometry and Algebra II/Math I, Math II, Math III

Textbook: Owen, J., Haese, R. Haese, S., & Bruce, M., (2012). Mathematics for the International Student: Mathematical Studies SL. Third edition. SA, Australia: Haese & Harris Publication. Interactive Student CD (accompaniment to the textbook)

Grading Policy

Summative Assessments ----- 40%		
✚ Unit tests		90 – 100% A
✚ Unit projects		80 - 89% B
✚ Math Studies Internal Assessment		70 – 79% C
Formative Assessments ----- 40%		50 – 69% D
✚ Quizzes		49 - 0% F
✚ Performance assessments		
Reflective/TOK Journals ----- 10%		
Homework/Class work ----- 10%		
✚ Homework		
✚ Investigations		
✚ Do Nows		
✚ In-class assignments		

Essential Materials

Please bring the following materials to class every day:

1. 1 three-ring binder (supplied by teacher)
2. 1 Graph-ruled composition book
3. Notebook paper, dividers, erasers and pencils
4. Mathematical Studies textbook
5. Graphing calculator with statistical functions (e.g., TI-83+, TI-84, 84+ Silver , etc.) **

Homework

Homework is assigned daily because practicing and studying consistently is the key to success in all mathematics courses. All loose-leaf homework papers and hand-outs should be organized in a designated section of the three-ring binder.

Class work

Notes: Students are expected to take notes during lessons. Students are recommended to use a designated section of the three-ring binder to organize their notes.

Investigations: The Mathematical Studies textbook includes a variety of investigative activities within each chapter. Students are expected to record their responses to each investigation in their composition book.

TOK Journals: The Mathematical Studies textbook also contains activities designed to promote the integration of Theory of Knowledge with all subject areas. Students are expected to record their responses to these activities in their composition book.

Reflective Journals: These handouts provide sentence frames to help students write a reflection on the days learning activities and identify any questions or areas of uncertainty that may exist. Students are expected to organize these handouts in a designated section of their binder.

Do Now: Do Now's are problems or questions assigned during the first 5 minutes of each class period to prepare students for the day's activities. Students are expected to record Do Now's in their composition book unless it is a printed handout.

In-class assignments: Textbook exercises and other learning activities designed to assess and deepen students' understanding of mathematical content, and develop their ability to apply that knowledge to solving non-routine problems.

Attendance and Tardy Policy

When a student is absent, it is his/her responsibility to make up all the missing assignments. Students who are tardy for three or more times will receive a "U" as a citizenship grade.

Make-up Quizzes and Tests

If students are absent on the day of a test, performance assessment or a quiz, they must make it up within two weeks of the original administration date. The specific time and place for the make-up must be arranged with the teacher.

Classroom Rules

In order to promote a safe and nurturing environment for learning, there are certain rules that all students must adhere to in the classroom. The following are my classroom rules:

1. Follow directions the first time they are given.
2. Be respectful of others and their personal space.
3. Use appropriate school language: no profanity, no put-downs, teasing, etc.
4. Come to class on time and be prepared to work.
5. Follow all school and district policies as outlined in the student handbook.

** Calculators may be checked out from the Blair High School Library or the teacher while supplies last.

Academic Honesty

Whenever you claim another person’s work as your own that is considered malpractice (cheating). If you are caught cheating on **any** assignment (test, quiz, project, etc.), you will receive a score of zero. **Sharing a calculator with a classmate during a test or a quiz is considered cheating.** There is absolutely no sharing of calculators during assessments. Students will be asked to sign an honor pledge for each major assignment turned in. By signing the pledge, students acknowledge their understanding of the Academic Honesty policy and that they have not violated that policy in any way.

Honor Pledge: “On my honor, I pledge that I have neither given nor received unauthorized assistance on this assignment. I confirm that this work is my own and I have acknowledged the use of the words or ideas of another person, whether written, oral or visual.”

Please review this document carefully (along with the attached IB Academic Honesty brochure), sign below, and have your student return the signed portion to me. If you have any questions or comments, you may write them below, contact me in person during my conference period (period 4) or contact me via email at law.karen@pusd.us. I’m looking forward to a fabulous year of exploring mathematics with you and your student!

Best regards,

Mrs. Karen E. Law
Mathematics Teacher
IB Diploma Programme Coordinator

I have read and understand the classroom rules, the academic honesty policy, and the course syllabus for IB Mathematical Studies SL.

Student’s Name (Print) _____ **Class** _____ **Period** _____

Student’s Signature: _____ **Date** _____

Parent or Guardian Name (Print) _____

Parent or Guardian Signature: _____ **Date** _____

Parent or Guardian Phone or Email: _____ **Best Time to be Contacted** _____

Please write any questions or comments in the space below.