

# International Baccalaureate Mathematics: Standard Level Syllabus

**Teacher:** Macy Reagan

**Room:** 136

**Email:** [macy.reagan@sausdlearns.net](mailto:macy.reagan@sausdlearns.net)

## Course Overview

IB Math SL is a 2-year course that is part of the IB Diploma Program. During Year 1 we will be covering Algebra, Functions and Equations, Circular Functions and Trigonometry, and Calculus. During Year 2 we will cover Probability, Statistics, Trigonometry, and Calculus. Throughout Year 2, you will also be writing an Internal Assessment (IA) paper that consists of 12-20 pages on an exploration of a math topic of your choice.

At the end of Year 2 you will also sit for two end-of-course exams (External Assessments). The grade for IB (not your transcript grade) will be calculated with the following weights: Internal Assessment (20%), External Assessment Part 1 (40%), and External Assessment Part 2 (40%).

## Course Objectives

By the end of the school year, you will be able to demonstrate a good understanding of the principles, processes, and vocabulary related to the following topics:

1. Number and Algebra
2. Functions
3. Geometry and Trigonometry
4. Statistics and Probability
5. Calculus

## Materials

- 3-ring binder
- Pencil and pens (colored pens optional)
- Paper: lined and graph
- Texas Instruments TI-Nspire or **TI-84+** or TI-83+

## IB Learner Profile

The aim of all IB programs is to develop internationally minded people who strive to be:

- |                  |                |
|------------------|----------------|
| 1. Inquirers     | 6. Open-minded |
| 2. Knowledgeable | 7. Caring      |
| 3. Thinkers      | 8. Risk-Takers |
| 4. Communicators | 9. Balanced    |
| 5. Principled    | 10. Reflective |

Because of this, I will not be up in front of class telling you how to do things as much as I will be guiding you to learn how to understand the concepts on your own or with your classmates. This math course will require much more reading than your previous math courses. Please do not skim over the material. The changes in vocabulary and notation from your previous courses to this course are great and will be vital to your success in this class.

### **Expectations:**

- Phones, headphones, and other electronics should be put away during class to eliminate distractions.
- When class is in session, students are paying attention to notes, participating in investigations, and staying focused on the topics of the class.
- All homework must be turned in by the end of the week on Friday by 3:22 PM, otherwise it will be marked late.
- All homework for the chapter will not be accepted after the day of the test. Please make sure all homework is turned in by the day of the test by 3:22 PM, unless stated by Mrs. Reagan.
- There will be no make-up quizzes. If a quiz is missed, your test score for the corresponding chapter will become your quiz score. If a test is missed, test make-ups will be given 2 days after you return. It is your responsibility to talk with the teacher to schedule a make-up test.

### **Academic Honesty**

You have decided to take a very demanding course of study and the pressure to do well is present. Please do not allow this pressure to force you into behaviors of academic dishonesty. We hope that students who chose to take IB courses fulfill all the characteristics of the learner profile listed in the intro of this syllabus. One of these characteristics is being principled. The governance of this class with regards to academic honesty will follow the academic contract you signed when you registered to be a student at Saddleback High School.

### **Internal Assessment (IA)**

The math IA is extremely important to your second semester math grade. Since you will be IB testing in the Spring semester, there is no written final. This means the Math IA paper and hitting each deadline assigned by your teacher (topic, rough draft, final draft, etc.) will be worth 20% of your Spring semester final grade. In the event you do not meet one of the given deadlines, you will receive Saturday school or after school detention to complete the missing portion of your IA. If you do not turn in your Final IA **on time**, the IA that will be graded and submitted to IB will be your rough draft that was turned in. Please make sure you hit every deadline and don't procrastinate. Please ask your teacher any questions that you may have to ensure your success on this paper.

### **Artificial Intelligence (AI)**

Be careful when using AI in this class. You can use AI to get ideas for your math IA or to study, with parent permission. If you wish to use AI, you must have a signed permission slip from your parent and returned to Mrs. Reagan. AI must be used appropriately. If used, make sure you cite your source and provide a screenshot of the conversation with AI or the link to the conversation. Be careful that you are honest and don't act in academically dishonest behaviors.

### IB Math Syllabus Agreement

By signing below, I understand and agree to the terms of the syllabus provided by Mrs. Reagan on August 14, 2023.

I understand that I will not have a written final in the spring semester of this school year. This means the Math IA paper and hitting each deadline assigned by Mrs. Reagan (topic, rough draft, final draft, etc.) will be worth 20% of my Spring semester final grade.

I also agree to the terms of the Internal Assessment (IA). I understand that if I don't meet the deadlines, I will receive Saturday school or after school detention to complete the missed portion of your IA. I also understand that if I do not turn in my Final IA **on time**, the IA that will be graded and submitted to IB will be the rough draft that was turned in.

I understand and agree to the terms of the syllabus:

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Student Signature: \_\_\_\_\_

Parent Name: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_

### AI Parent Agreement

I give my student, \_\_\_\_\_, permission to use AI in the classroom.

Parent Name: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_