

WPHS IB Mathematics Courses 23-24

IB Math Pathways:

- IB Math courses require Algebra II Honors as a prerequisite
- After Algebra II Honors, students choose between two IB math course pathways: **Math Analysis and Approaches** or **Math Applications and Interpretation**
- **Math Analysis and Approaches (Math AA)** pathway will be offered at both the SL (1 year) and HL (2 year) levels.
- **Math Applications and Interpretations (Math AI)** pathway will be offered at the SL (2 year) level.

Mathematics Applications and Interpretations (Math AI): This course is designed for students who enjoy describing the real world and solving practical problems using mathematics, those who are interested in harnessing the power of technology alongside exploring mathematical models and enjoy the more practical side of mathematics.

- Emphasis on modelling and statistics
- Develops strong skills in applying mathematics to the real-world
- Real mathematical problem solving using technology
- ***For students interested in social sciences, natural sciences, statistics, medical, business, psychology and design in college***

Mathematics Analysis and Approaches (Math AA): This course is intended for students who wish to pursue studies in mathematics at university or subjects that have a large mathematical content; it is for students who enjoy developing mathematical arguments, problem solving and exploring real and abstract applications, with and without technology.

- Emphasis on algebraic methods
- Develop strong skills in mathematical thinking
- Real and abstract mathematical problem solving
- ***For students interested in mathematics, medicine, engineering, physics, physical sciences, some business and economics in college***
- If you are considering majoring in Engineering or Mathematics in college, you will want to consider IB Math AA Higher Level. You will need to be in IB Pre-Calculus or higher in 10th grade.

IB Analysis and Approaches			IB Applications and Interpretation		
Emphasis on calculus			Emphasis on statistics, modeling, and using technology		
Recommended Teaching Hours Percentages:			Recommended Teaching Hours Percentages:		
	SL	HL		SL	HL
Number and Algebra	13%	16%	Number and Algebra	11%	12%
Functions	14%	13%	Functions	21%	18%
Geometry and Trigonometry	17%	21%	Geometry and Trigonometry	12%	18%
Statistics and Probability	17%	14%	Statistics and Probability	24%	23%
Calculus	19%	23%	Calculus	12%	16%
Exploration	20%	13%	Exploration	20%	13%
*40% of the SL content across both pathways is the same					

The WPHS Mathematics IB progression:

IB Mathematics Applications and Interpretations (SL)

Grade 10/11:	IB Mathematics A&I 1	Year 01
Grade 11/12:	IB Mathematics A&I 2	SL Examination Year 02

IB Mathematics Analysis and Approaches (SL)

Grade 10/11:	IB Pre-Calculus	Year 01
Grade 11/12:	IB Mathematics A&A 2	SL Examination Year 02

IB Mathematics Analysis and Approaches (HL)

Grade 10:	Mathematics A&A 1	
Grade 11:	AP Calculus AB/BC	Mathematic HL Year 01
Grade 12:	IB Mathematics A&A 3	HL Examination Year 02

Possible paths

Here is a list of the most common 4-year IB math pathways. As with all IB course progressions, we will look at each student on an individual basis.

9th Grade	10th Grade	11th Grade	12th Grade	
Geo Hon ->	Alg II Hon ->	Math AI 1 ->	Math AI 2	
Geo Hon ->	Alg II Hon ->	IB Pre-Calc->	Math AA 2	
Alg II Hon ->	Math AI 1 ->	Math AI 2 ->	AP Stats	
Alg II Hon ->	IB Pre-Calc ->	Math AA 2 ->	AP Stats or AP Calc AB	
Alg II Hon ->	Math AA 1 ->	AP Calc AB/BC ->	Math AA 3	Higher Level path
IB Pre-Calc ->	AP Calc AB ->	AP Calc BC ->	Math AA 3	Higher Level path

Math Analysis and Approaches (Math AA)

Math Applications and Interpretations (Math AI)

Addition Website to Help Explain the Changes: <https://blogs.ibo.org/blog/2019/06/20/mathematics-subject-breakdown/>