

**MS Prep - Mathematics**  
**2022 Summer Class Schedule**



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**MS PREP**

문의 1800-6291

교과상담:

Math 010-2412-3152

Physics 010-7129-7116



**Exeter Math 2, Exeter Math 3**

6/11 ~ 8/20 까지 10 주 동안의 Problem Based Learning

- ▶ Exeter Math 2 – Geometry 903 Problems
- ▶ Exeter Math 3 – Precalculus 919 Problems
- ▶ **질의 응답 및 평가 시간**
  - : 매주 화,목 PM 7~10 시, 토 AM10~PM1, 단 7/16(토), 7/19(화) 제외
  - 학생 스스로 Phillips Exeter Academy Math 문제를 풀면서 Problem Solving Skill 을 익히는 자기주도 학습 프로그램
  - 스스로 문제 Solution 을 만들고, 어려운 문제는 풀이 동영상(VOD)을 보면서 자유롭게 학습
  - 매주 학습 진도 체크 및 3, 6, 9 주차 및 최종평가 실시
  - 10 주 학습 수료 시 30% 캐시백
  - ※ 전체 문제 Solution 완성 및 평가 결과 평균 70% 이상 시 수료 인정
  - 수료한 학생이 MSPREP Math 수업 등록할 때 이용할 수 있는 Voucher 또는 Amazon Gift Card 제공.

Prerequisite – Geometry or Algebra2

다양한 문제를 직접 풀면서 수학적 문제 해결 능력을 향상시키려는 학생을 위한 수업입니다. 수학 개념을 단방향 설명에 의존하지 않고 문제를 푸는 과정을 통해 스스로 사고하면서 깨우칠 수 있습니다. 자기 주도적으로 공부하는 학생에게 큰 효과를 기대할 수 있습니다.

**Multivariate Calculus**

여름방학 수업 (7/20 ~ 8/12 월수금: 11 회, 33 hrs ) PM 2~5

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2022 July	17	18	19	20 PM 2-5 Multivariate Calculus	21	22 PM 2-5 Multivariate Calculus	23
	24	25 PM 2-5 Multivariate Calculus	26	27 PM 2-5 Multivariate Calculus	28	29 PM 2-5 Multivariate Calculus	30
2022 August	31	1 PM 2-5 Multivariate Calculus	2	3 PM 2-5 Multivariate Calculus	4	5 PM 2-5 Multivariate Calculus	6
	7	8 PM 2-5 Multivariate Calculus	9	10 PM 2-5 Multivariate Calculus	11	12 PM 2-5 Multivariate Calculus	13

Textbook : Calculus Early Transcendentals 8th, James Stewart

Unit 12. Vectors and Geometry of Space

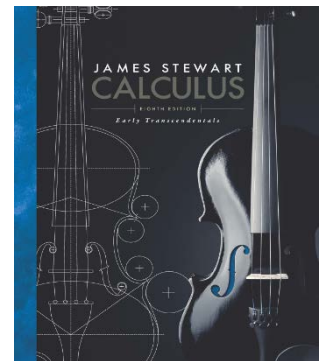
Unit 13. Vectors Functions

Unit 14. Partial Derivatives

Unit 15. Multiple Integrals

Unit 16. Vector Calculus

Unit 17. Second-Order Differential Equations



Prerequisite - AP Calculus BC

※ Engineering 전공을 위해 학생들이 선택하는 Calculus 심화 과정입니다.

전체 과정을 수강하거나 8 회만(Unit15 까지) 수강 가능 합니다.

# MS Prep 2022 Summer Class Schedule

## Linear Algebra

여름방학 수업 (7/20 ~ 8/10 월수금: 10 회, 30 hrs ) PM 7~10

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2022 July	17	18	19	20 PM 7-10 Linear Algebra	21	22 PM 7-10 Linear Algebra	23
	24	25 PM 7-10 Linear Algebra	26	27 PM 7-10 Linear Algebra	28	29 PM 7-10 Linear Algebra	30
2022 August	31	1 PM 7-10 Linear Algebra	2	3 PM 7-10 Linear Algebra	4	5 PM 7-10 Linear Algebra	6
	7	8 PM 7-10 Linear Algebra	9	10 PM 7-10 Linear Algebra	11	12	13

Textbook : Elementary Linear Algebra 12th, Howard Anton, Anton Kaul

Unit 1. Systems of Linear Equations and Matrices

Unit 2. Determinant

Unit 3. Euclidean Vector Spaces

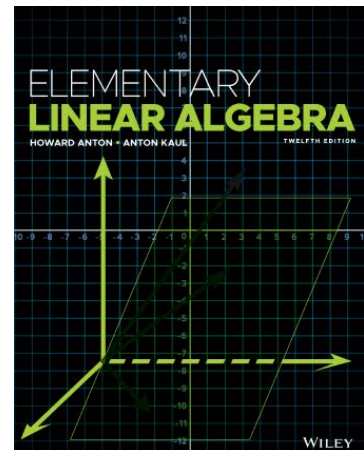
Unit 4. General Vector Spaces

Unit 5. Eigenvalues and Eigenvectors

Unit 6. Inner Product Spaces

Unit 7. Diagonalization and Quadratic Forms

Unit 8. General Linear Transformations



Prerequisite – AP Calculus BC

※ Engineering, Science 전공 예정 학생들이 선택하는 Calculus 이후 선택 과정입니다.

## MS Prep 2022 Summer Class Schedule

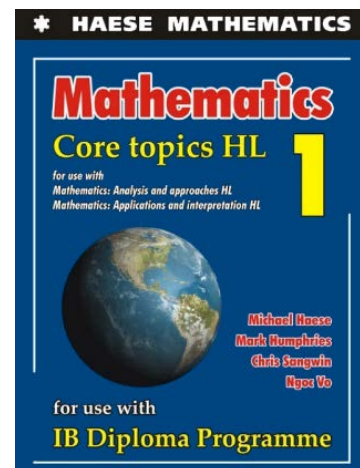
### IB Math AA HL yr1 / Precalculus

**여름방학 수업 (6/16 ~ 7/14 화목토: 13 회, 39 hrs ) PM 2~5**

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>2022 June</b>	12	13	14	15	16 PM 2-5 IB AA 1yr Precalculus	17	18 PM 2-5 IB AA 1yr Precalculus
	19	20	21 PM 2-5 IB AA 1yr Precalculus	22	23 PM 2-5 IB AA 1yr Precalculus	24	25 PM 2-5 IB AA 1yr Precalculus
	26	27	28 PM 2-5 IB AA 1yr Precalculus	29	30 PM 2-5 IB AA 1yr Precalculus	1	2 PM 2-5 IB AA 1yr Precalculus
<b>2022 July</b>	3	4	5 PM 2-5 IB AA 1yr Precalculus	6	7 PM 2-5 IB AA 1yr Precalculus	8	9 PM 2-5 IB AA 1yr Precalculus
	10	11	12 PM 2-5 IB AA 1yr Precalculus	13	14 PM 2-5 IB AA 1yr Precalculus	15	16

Textbook : Mathematics Core Topics HL 1 ( Statistics 제외)

- Unit 1. Straight Lines
- Unit 2. Sets and Venn Diagrams
- Unit 3. Surds and Exponents
- Unit 4. Equations
- Unit 5. Sequences and Series
- Unit 6. Measurement
- Unit 7. Right Angled Triangle Trigonometry
- Unit 8. The Unit Circle and Radian Measure
- Unit 9. Non-right Angled Triangle Trigonometry
- Unit 10. Points in Space
- Unit 11. Probability
- Unit 14. Quadratic Functions
- Unit 15. Functions
- Unit 16. Transformations of Functions
- Unit 17. Trigonometric Functions



#### Prerequisite – Algebra2

IB Math AA HL year1 을 준비하는 학생 대상 수업으로, Precalculus 범위에 해당합니다.

# MS Prep 2022 Summer Class Schedule



## Precalculus

여름방학 수업 (7/26 ~ 8/20 화목토: 12 회, 36 hrs ) PM 2~5

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2022 July	24	25	26 PM 2-5 Precalculus	27	28 PM 2-5 Precalculus	29	30 PM 2-5 Precalculus
	31	1	2 PM 2-5 Precalculus	3	4 PM 2-5 Precalculus	5	6 PM 2-5 Precalculus
2022 August	7	8	9 PM 2-5 Precalculus	10	11 PM 2-5 Precalculus	12	13 PM 2-5 Precalculus
	14	15	16 PM 2-5 Precalculus	17	18 PM 2-5 Precalculus	19	20 PM 2-5 Precalculus

Textbook : Precalculus 11<sup>th</sup>, Sullivan

Unit 1. Graphs

Unit 2. Functions and Their Graphs

Unit 3. Linear and Quadratic Functions

Unit 4. Polynomial and Rational Functions

Unit 5. Exponential and Logarithmic Functions

Unit 6. Trigonometric Functions

Unit 7. Analytic Trigonometry

Unit 8. Applications of Trigonometric Functions

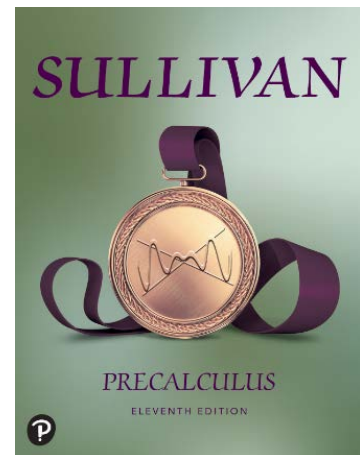
Unit 9. Polar Coordinates; Vectors

Unit 10. Analytic Geometry

Unit 11. Systems of Equations and Inequalities

Unit 12. Sequences; Inductions; the Binomial Theorem

Unit 13. Counting and Probability



### Prerequisite - Algebra2

Precalculus 를 준비하는 학생 대상 수업입니다.

IB Math AA HL year1,2 범위 중 Calculus/Statistics Part 를 제외한 내용을 수업합니다.

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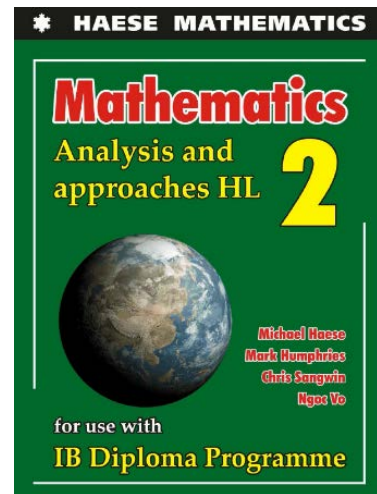
## IB Math AA HL yr2 - Calculus

여름방학 수업 (6/20 ~ 8/15 월수금 : 12 회, 36 hrs ) PM 2~5

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2022 June	19	20 PM 2-5 IB AA Yr2 Calculus	21	22 PM 2-5 IB AA Yr2 Calculus	23	24 PM 2-5 IB AA Yr2 Calculus	25
	26	27 PM 2-5 IB AA Yr2 Calculus	28	29 PM 2-5 IB AA Yr2 Calculus	30	1 PM 2-5 IB AA Yr2 Calculus	2
2022 July	3	4 PM 2-5 IB AA Yr2 Calculus	5	6 PM 2-5 IB AA Yr2 Calculus	7	8 PM 2-5 IB AA Yr2 Calculus	9
	10	11 PM 2-5 IB AA Yr2 Calculus	12	13 PM 2-5 IB AA Yr2 Calculus	14	15 PM 2-5 IB AA Yr2 Calculus	16

Textbook : Mathematics AA HL 2

- Unit 15. Limits
- Unit 16. Introduction to Differential Calculus
- Unit 17. Rules of Differentiation
- Unit 18. Properties of Curves
- Unit 19. Applications of Differentiation
- Unit 20. Introduction to Integration
- Unit 21. Techniques of Integration
- Unit 22. Definite Integrals
- Unit 23. Kinematics
- Unit 24. Maclaurin Series
- Unit 25. Differential Equations



### Prerequisite – IB Math Yr1 / Precalculus

IB Math AA HL year2 범위 중 Calculus 범위를 공부합니다. IB Math AA HL 의 Calculus 부분은 AP Calculus BC 와 90% 정도 동일한 내용을 다룹니다.



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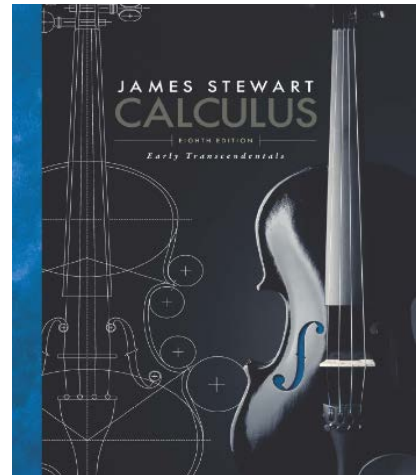
### AP Calculus AB/BC

여름방학 수업 (8/8 ~ 8/19 월~금 : 10 회, 30 hrs ) AM10~PM1

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
2022 August	7	8	9	10	11	12	13	
	AM10 - PM1 AP Calculus							
	14	15	16	17	18	19	20	
	AM10 - PM1 AP Calculus							

Textbook : Calculus Early Transcendentals 8th, James Stewart

- Unit 1. Functions and Models
- Unit 2. Limits and Derivatives
- Unit 3. Differentiation Rules
- Unit 4. Application of Differentiation
- Unit 5. Integrals
- Unit 6. Applications of Integrals
- Unit 7. Techniques of Integration
- Unit 8. Further Application of Integration
- Unit 9. Differential Equations



### 겨울방학 수업 (BC only)

- Unit 10. Parametric Equations and Polar Coordinates
- Unit 11. Infinite Sequences and Series

### Prerequisite – IB Math Yr1 / Precalculus

AP Calculus AB 범위 전체, AP Calculus BC 80% 범위를 공부합니다.  
 IB Math AA SL/HL year2 범위 중 Calculus 범위에 해당합니다.

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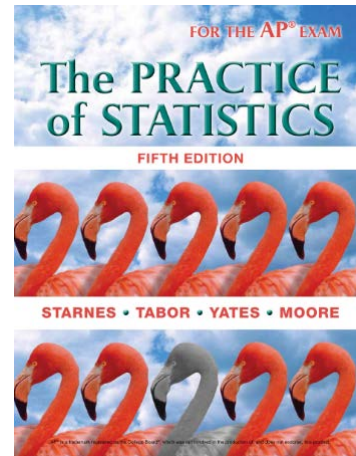
## AP Statistics

여름방학 수업 (6/20 ~ 7/15 월수금 : 12 회, 36 hrs ) PM 7~10

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2022 June	19	20 PM 7-10 AP Statistics	21	22 PM 7-10 AP Statistics	23	24 PM 7-10 AP Statistics	25
	26	27 PM 7-10 AP Statistics	28	29 PM 7-10 AP Statistics	30	1 PM 7-10 AP Statistics	2
2022 July	3	4 PM 7-10 AP Statistics	5	6 PM 7-10 AP Statistics	7	8 PM 7-10 AP Statistics	9
	10	11 PM 7-10 AP Statistics	12	13 PM 7-10 AP Statistics	14	15 PM 7-10 AP Statistics	16

Textbook : The Practice of Statistics 5th, AP Edition

- Unit 1. Exploring Data
- Unit 2. Modeling Distribution of Data
- Unit 3. Describing Relationships
- Unit 4. Designing Studies
- Unit 5. Probability: What are the Chances?
- Unit 6. Random Variables
- Unit 7. Sampling Distributions
- Unit 8. Estimating with Confidence
- Unit 9. Testing a Claim
- Unit 10. Comparing Two Populations or Groups
- Unit 11. Inference for Distributions of Categorical Data
- Unit 12. More about Regression



Prerequisite – IB Math Yr1 / Precalculus

AP Statistics 전 범위를 공부합니다. 매 수업마다 30 분 Quiz 를 통해 문제 풀이 위주로 학생들의 Statistics 개념 이해를 평가하며, 실제 AP 시험에 대비할 수 있게 수업합니다.