# AP Calculus AB
## Year at a Glance (YAG)
## 2021-2022

| First Semester | | Second Semester | |
|---|---|---|---|
| **1ˢᵗ Nine Weeks – 40 days**<br>(August 19th – October 15th)<br>*(September 2nd – Labor day – No School)*<br>*(October 14th – Staff Development)* | | **3ʳᵈ Nine Weeks – 45 days**<br>(January 6th – March 17th)<br>*(January 20th – MLK – No School)*<br>*(March 9th – 13th – Spring Break)* | |
| **College Board Standard**<br>EU 1.1, EU 1.2 | **Unit 1: Limits ( 10 days)**<br>Students will determine limits algebraically, graphically, and tabularly. | EU 3.1, EU 3.2 | **Unit 7: Riemann Sums and Antidifferentiation (15 days)**<br>Students will determine the area under a function using a Riemann sum, analyze its significance and relate that value to the antiderivative. |
| EU 2.1, EU 2.2 | **Unit 2: The Derivative and Derivative Rules (15 days)**<br>Students will explore the concept o the derivative and determine derivatives for a variety of functions. | EU 3.3, EU 3.4 | **Unit 8: Fundamental Theorem of Calculus (8 days)**<br>Students will explore the concept of the Fundamental Theorem of Calculus and integration. |
| EU 2.3 | **Unit 3: Mechanics of Motion (15 days)**<br>Students will explore the Calculus of motion. | EU 3.3, EU 3.4 | **Unit 9: Application of the Fundamental Theorem of Calculus (10 days)**<br>Students will apply the F.T.C. in a variety of real world contexts. |
| | | EU 3.5 | **Unit 10: Differential Equations (12 days)**<br>Students will solve and apply differential equations in a variety of contexts. |
| **2ⁿᵈ Nine Weeks – 43 days**<br>(October 16th – December 20st)<br>*(November 25th – 29th – Thanksgiving Break)*<br>*(December 23rd – January 3rd – Holiday Break)* | | **4ᵗʰ Nine Weeks – 45 days**<br>(March 18th – May 21rd)<br>*(April 10th – Good Friday – No School)*<br>*(April 24th – Battle of Flowers – No School)*<br>*(May 25th – Memorial Day – No School)* | |
| EU 2.2, EU 2.4 | **Unit 4: Analyzing f,f',f'' Relationships (15 days)**<br>Students will analyze the relationships between a function and its derivative. | EU 3.4 | **Unit 10: Area and Volume (15 days)**<br>Students will find the area and volume of various irregular figures. |
| EU 2.3 | **Unit 5: Optimization (12 days)**<br>Students will apply derivatives in a variety of real world contexts. | All | **Unit 11: AP Review Multiple Choice (12 days)**<br>Students will review all concepts presented in this class in order to prepare for the AP test. |
| EU 2.3 | **Unit 6: Related Rates (12 days)**<br>Students will apply derivatives in a variety of real world contexts.<br><br>**Semester Exam/Review (4 days)** | All | **Unit 12: AP Review Free Response (12 Days)**<br>Students will review all concepts presented in this class in order to prepare for the AP test.<br>**Semester Exam/Review (6 days)** |

| Resources | | | |
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| 1st Nine Weeks | 2nd Nine Weeks | 3rd Nine Weeks | 4th Nine Weeks |
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