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

First Semester		Second Semester	
1st Nine Weeks – 40 days (August 19th – October 15th) *(September 2nd – Labor day – No School)* *(October 14th – Staff Development)*		**3rd Nine Weeks – 45 days** (January 6th – March 17th) *(January 20th – MLK – No School)* *(March 9th – 13th – Spring Break)*	
College Board Standard **EU 1.1, EU 1.2** **EU 2.1, EU 2.2** **EU 2.2 EU 2.3 EU 2.4** **EU 2.3**	**Content** **Unit 1: Limits (**9 days) Students will determine limits algebraically, graphically, and tabularly. **Unit 2: The Derivative and Derivative Rules (**11 days) Students will explore the concept o the derivative and determine derivatives for a variety of functions. **Unit 3: Derivative Applications and Analyzing f,f',f'' Relationships.** (12 days) Students will analyze the relationships between a function and its derivative. **Unit 4: Optimization and Related Rates** (8 days) Students will apply derivatives in a variety of real world contexts.	EU 2.3 EU 3.3 EU 3.5 EU 3.3, EU 1.1 EU 2.2, EU 2.3, EU 3.4 EU 4.1 EU 4.2	**Unit 9: Integration techniques, growth and decay (11 days)** Students will use various integration techniques to solve various growth and decay problems. **Unit 10: Improper integrals and L'Hopitals Rule(10 days)** Students will determine limits using L'Hopital's rule and then use those limits to evaluate improper integrals. **Unit 11:Polar, Parametric, and Vector Equations (12 days)** Students will explore motion of objects in 2 dimensions, using vectors, parametric and polar functions. **Unit 12: Series Convergence (12 days)** Students will analyze various series using the various series convergence tests.
2nd Nine Weeks – 43 days (October 16th – December 20st) *(November 25th – 29th – Thanksgiving Break)* *(December 23rd – January 3rd – Holiday Break)*		**4th Nine Weeks – 45 days** (March 18th – May 21rd) *(April 10th – Good Friday – No School)* *(April 24th – Battle of Flowers – No School)* *(May 25th – Memorial Day – No School)*	
EU 3.1, EU 3.2, EU 3.3, EU 3.4 EU 3.3, EU 3.4 EU 3.4 EU 3.5	**Unit 5: Riemann Sums, Antidifferentiation and Fundamental Theorem of Calculus (9 days)** Students will explore the concept of the Fundamental Theorem of Calculus and integration. **Unit 6: Application of the Fundamental Theorem of Calculus (7 day)** Students will apply the F.T.C. in a variety of real world contexts. **Unit 7: Area and Volume (10 days)** Students will find the area and volume of various irregular figures. **Unit 8: Differential Equations (11 days)** Students will solve and apply differential equations in a variety of contexts. **Semester Exam/Review (3 days)**	EU 4.2 ALL ALL	**Unit 13: Taylor Series (15 days)** Students will use the Taylor formula to represent a variety of functions as series and analyze the error of these series. **Unit 14: AP Review Multiple Choice (13 days)** Students will review all concepts presented in this class in order to prepare for the AP test. **Unit 15: AP Review Free Response (13 days)** Students will review all concepts presented in this class in order to prepare for the AP test. **Semester Exam Review (4 days)**

Resources

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