



## AP Calculus

**Course Description:** This is an introductory study of differential and integral calculus including applications in the physical, natural, and social sciences. Topics studied include functions and their graphs, limits and continuity, the derivative and applications, and the integral and applications. Students may elect to take the AP Calculus exam at the conclusion of the course at their expense

**Attendance:** Students are required to be in school every day. Students are responsible for communicating with their teachers to make up missed learning.

### Essential Skills:

1. Determining expressions and values using mathematical procedures and rules
2. Justifying reasoning and solutions
3. Connecting representations
4. Using correct notation, language, and mathematical conventions to communicate results or solutions

**Course Expectations:** Although not everything is graded, everything is important. In order to demonstrate growth and learning, students will need to:

1. Participate in class activities (take notes, work in a group, complete in class tasks, ask questions) without distractions (cell phones, games, etc.)
2. Use morning time and the teacher to seek help outside of class when needed.
3. Complete all assessments within teacher timelines.
4. Take charge of your own learning and set goals for your college experience.
5. Work with varying classmates to gain deeper understanding and share ideas that provide another perspective.

### Grading

**Learning (Practice)** includes instructional activities in and outside of class and are not used in grade determination.

**Skyward Assessment (Grades)** may include quizzes, labs, learning checks, tests, speeches, performances, and projects.

Final Grade	
A	100% - 90%
B	80% - 89%
C	70% - 79%

D	60% - 69%
F	0% - 59%

### **Calculations:**

<b>Final Grade Calculation</b>	
Cumulative Grade	<b>95%</b>
Final Exam(s)	<b>5%</b>

### **Central High School Courses:**

- Will determine grades based on student performance and growth.
- Will not include practice and behavior in grade determination.
- Will give all students regardless of absence an opportunity to demonstrate learning.
- Will not include extra credit.

**Instructional Resources:** Pearson Calculus AP Edition textbook, Math XL Pearson online resources, Forrester Calculus textbook & explorations, Desmos online graphing calculator, Khan Academy, AP College Board website and resources, Kahoot, youtube

# Course Calendar/Pacing:

2023-2024 AP Calculus Pacing Guide																				
August/September						October						November								
		22	23	24	25	26	1	2	3	4	5	6	7				1	2	3	4
27	28	29	30	31	1	2	8	9	10	11	12	13	14	5	6	7	8	9	10	11
3	4	5	6	7	8	9	15	16	17	18	19	20	21	12	13	14	15	16	17	18
10	11	12	13	14	15	16	22	23	24	25	26	27	28	19	20	21	22	23	24	25
17	18	19	20	21	22	23	29	30	31					26	27	28	29	30		
24	25	26	27	28	29	30														
December						January						February								
					1	2		1	2	3	4	5	6					1	2	3
3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	11	12	13	14	15	16	17
17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23	24
24	25	26	27	28	29	30	28	29	30	31				25	26	27	28	29		
31																				
March						April						May/June								
					1	2		1	2	3	4	5	6				1	2	3	4
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	1
31																				
Topic 1- Exploring Rates of Change Pacing: 16 Classes						Unit 2 – Polynomials and Rational Functions Pacing: 16 Minis						Unit 3 – Constructing Functions Pacing: 10 Minis								
Unit 4 – Exponential Functions Pacing: 10 Minis						Unit 5: Logarithmic Functions Pacing: 15 Minis						Unit 6 – Exploring Sine and Cosine Functions Pacing: 20 minis								
Unit 7 – Working with Trigonometric Functions Pacing: 11 Minis						Unit 8: Polar Functions Pacing: 18 Minis						AP National Exam Review Pacing: 14 Minis								
Review and Semester/Final Exam						Post Exam Projects or Calc 2 Topics						Either Unit 1 – 5 Overflow or Optimization Practice or FRQ Work								
Semester Exams						Professional Development						Early Release								