Course Syllabus

Franklin High School	2020-2021

Course Overview

NOTE: For core classes, all elements of this section (except for name and contact information) are the same.

Course Title: AP Calculus AB

Instructor Name: Deb Wasserman	**Contact Info:** dwasserm@pps.net

Grade Level(s): 10-12

Credit Type: (i.e. "science", "elective") elective	# of credits per semester: 1.0

Prerequisites (if applicable): PreCalculus

General Course Description:

AB Calculus AB is an introductory college-level Calculus course designed to prepare the students for the AP Calculus AB exam as well as future college math classes. Students cultivate their understanding of differential and integral calculus through engaging with real-world problems represented graphically, numerically, and analytically. Students use definitions and theorems to build arguments and justify conclusions as they explore concepts such as rates of change, limits, and the analysis of functions.

Prioritized National/State Standards:

 Course covers all required content and standards for AP Calculus as specified by Collegeboard.

1. Limits and Continuity. Rates and change and limits, limits involving infinity, continuity, tangent lines.

2. Derivatives and Their Applications. Definition of derivative, rules for differentiation, derivatives of trigonometric functions, tangent line and rates of change applications.

3. Definite Integrals and Their Applications. Definition of integrals, methods of integration, slope fields, integras of net change, area in the plane, rotational volume.

4. Differential Equations and Modeling. Slope fields, first-order separate differential equations.

Course Details
Learning Expectations

Materials/Texts.

Calculus for the AP Course, 2nd edition (Sullivan and Miranda). This course will cover Chapters 1-6. Students are strongly encouraged to purchase an AP practice book for their own use. (Barrons, Princeton Review).

Course Content and Schedule:

Chapter 1: Limits and Continuity: 9/14-10/2
Chapter 2: The Derivative: 10/5-10/16
Chapter 3: More About Derivatives: 10/19-11/3
Chapter 4: Applications of the Derivative: 11/4-12/4
Chapter 5: The Integral: 12/7-1/8
Chapter 6: Applications of the Integral: 1/11-1/28

Students will work on AP practice multiple choice questions throughout the course. Practice on AP Free Response questions, as well as full-length practice exams, will be done independently by students after the conclusion of the course.

Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other):

This is an AP elective course intended to prepare students for the AP exam, as such, the curriculum is fairly inflexible. For students needing additional rigor, the textbook offers many supplementary activities and challenge problems, in addition to content specified as being beyond the scope of the AP exam.

Safety issues and requirements (if applicable): N/A

Classroom norms and expectations:

- Students will log on before or when class starts with microphones and cameras off.
- Students are expected to be present during the entire class.
- Stretch breaks, walking around, eating and drinking is allowed.
- Students will have textbooks (if appropriate), notebook, papers, calculator, and general supplies at each class.
- Students will ask math questions verbally (if possible), rather than typing in the chat.
- Students will take notes and complete classwork problems.
- Students will limit use of chat box to urgent private message to teacher, or brief general question for class (e.g., what page are we on)
- Students are expected to be respectful towards their teacher and peers at all times, whether online or in person. Students are expected to work both independently and collaboratively, as directed. Students and teachers will refer to the Franklin High School Student Climate Guide.

Evidence of Course Completion
Assessment of Progress and Achievement: Daily score on homework assignments, summative unit tests.

Progress Reports/Report Cards (what a grade means):
 	
    90-100%=   A
 	
    80-89% =   B
 	
    70-79% =   C
 	
    60-69% =   D
 	
    Less than 60% = F

Career Related Learning Experience (CRLEs) and Essential Skills: N/A
Communication with Parent/Guardian
What methods are used to communicate curriculum, successes, concerns, etc.? Primary communication method is email to student PPS email, or parent email listed in Synergy. Non-urgent announcements are posted on the Canvas course home page.
Personal Statement and other needed info
N/A