AP Calculus AB (Larry Peterson)

Schedule is for 5 days, Monday to Friday.

- Morning session 8:30 am - 11:30 am (Mountain Daylight Time)
- Lunch break 11:30 am - 12:00 noon
- Afternoon session 12:00 noon - 3:30 pm

Participants who are ***new to the AP Calculus Program*** should contact their school administration as soon as possible to ensure that they have been registered on the AP Calculus Course ledger. They will need to complete the AP Course Audit form in order to gain access to **AP Classroom** and other resources. Go to https://apcentral.collegeboard.org/courses/ap-calculus-ab

Two weeks prior to the online workshop, each participant will be provided with directions to ***complete an AP Calculus Exam*** composed of a multiple-choice and a free-response section. This three-hour mock exam will illustrate the depth and breadth of testable topics and learning objectives that students will need to master as part of the AP course. It will also provide an opportunity for participants to identify their own strengths and weaknesses in applying these concepts. During our workshop, we will discuss the exam design, how to score student responses and determine their AP Score, and strategies to help improve their performance.

Prior to our workshop, teachers and students can access the ***Course and Exam Description Handbook***, which provides detailed information about the units, topics and science skills that are integrated throughout the curriculum. It would be beneficial for teachers who are new to the AP program to review the Course Framework of this Handbook prior to our online workshop. A copy can be downloaded at the BC Calculus home page at AP Central.

The daily online workshop will be a blend of synchronous learning via **Microsoft Teams** and asynchronous learning using Google Classroom. The ratio of synchronous to asynchronous will be approximately 1:1 or 1:2, which translates into approximately 1.5 to 2 hours of together time and 3 to 4 hours of independent or small-group learning time. The College Board will provide all participants with a Multi-Day Workshop Handbook filled with lessons and activities to help plan and teach the AP course and assess student progress and understanding. Additional teacher-developed best practices will be shared electronically with participants and incorporated into the online learning to provide a wide variety of resources and support for you and your students.

Each morning and afternoon session will start with the synchronous presentation of information offering two-way, real-time video and audio demonstrations, short videos, Q & A, and instructions for the asynchronous time. There will be 2-3 group Teams sessions each day. Participants will receive sample course outlines with all relevant assignments, quizzes, and unit exams.

For the asynchronous time, participants will have a specified amount of time to complete various tasks independently or in small group breakout sessions, after which time the large group will **re-Teams** to debrief. Asynchronous learning time will typically include tasks that are focused on identified student challenge areas, based on their performance on past AP exams. This will include utilizing features of the **AP Classroom** to develop lesson plans for reinforcing skill and topic connections. The presenter will be available during asynchronous time to answer questions or to provide additional support. Each day will end with a Teams wrap-up, having the final 15 minutes dedicated to addressing the concerns of new AP teachers and summarizing the activities of the day. This will provide clarity and focus to prepare for the next day's work.

Each day will have a theme but expect that the agenda is likely to be revised in order to satisfy the needs of the group.

Day One: Preparing to learn and teach remotely
Understanding the Course, Curriculum Framework and Exam Format
AP Central Resources, College Board Multi-Day Handbook activities
Limits, 20 Minute Ride, The Derivative

Day Two: **Teaching the Course, Lesson Planning and Instructional Strategies**
Multiple Choice Exam question format and style, test-taking strategies, teaching for understanding
Derivative rules, more derivative rules, Applications of derivatives
MVT worksheet, Slope fields, L'Hospital's Rule
Classroom activities

Day Three: **Course Planning and Audit Requirements**
AP Classroom Unit Progress Checks and Question Bank
Free-Response Exam question format and style, Rubric Scoring
Antiderivatives, Definite Integral → Riemann Sum

Day Four: **Sharing Session and Online Learning Resources**
AP Central Resources, College Board Multi-Day Handbook activities
Free-Response Rubric Scoring, test-taking strategies, determining student AP score
FTC Worksheet, applications of definite integrals, rates and accumulation

Assessing Student Progress and Understanding
Interpreting the Instructional Planning Report
Becoming a Member of the AP Community
Pre-AP Calculus Course and Framework
Exploring various CB Course Resources
Accessing AP Calculus Resources

If you have any questions or concerns prior to the APSI please email the presenter;
Larry Peterson at larrypeterson@lgcy.com