

WELCH CENTER FOR GRADUATE AND PROFESSIONAL STUDIES  
 GOUCHER COLLEGE  
 ADVANCED PLACEMENT SUMMER INSTITUTE - ONLINE  
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**Syllabus**

**AP 507.300 - Preparing Students for Advanced Placement® Calculus AB**

**Monday, July 11-Thursday, June 14, 2022 (8:30 a.m. to 4:00 p.m.); Friday, July 15, 2022 (8:30 a.m. to 12:30 p.m.)**

This online workshop provides teachers with the tools they need to implement effective AP Calculus AB course. During this training, teachers will explore the mathematical practices for AP Calculus (MPACs) and the components of the curriculum framework, including the big ideas, enduring understandings, learning objectives, and essential knowledge. Participants will understand how to use activities that organize the course content to develop students’ proficiencies in the skills identified by the curriculum framework; participants will work on a course plan that will help them decide how they will teach the skills and content of the AP Calculus AB courses. In addition, participants will explore and incorporate the new tools from the College Board to enhance their instruction and maximize the probability of their students’ successes.

Participants will be expected to collaborate and participate fully in the proceedings of the course and will be encouraged to create a network of support.

**Instructor: Dr. Jim Bohan, Ed.D.**

bohan.educ@gmail.com– please state “Goucher AP Calc AB” in the subject line.

**Tentative Schedule - Summer 2022**

AP Calculus AB Workshop – Goucher College – 2020

Tentative Times	Monday	Tuesday	Wednesday	Thursday	Friday
	Introductions Expectations	Feedback Questions Technology	Feedback Questions Technology	Feedback Questions Technology	Feedback Questions Technology
Homework 2015 AB Practice Test	5, 11, 20  77, 86, 89, 90	2, 7, 10, 12, 13, 14, 15, 17, 25, 27  79, 83	1, 3, 6, 9, 16, 22, 26, 28  76, 78, 80, 81, 84, 85, 87, 88	4, 8, 18, 19, 21, 23, 24  91, 92	
Handbook	Lessons 1-5 and 8	Math Practice 2 – Lesson 9	Math Practice 3 – Lesson 10	Math Practice 1 – Lesson 11	Math Practice 4 – Lesson 15
AM	<b>Workshop Focus</b> <b>New Resources</b> <b>Key Takeaways</b> <b>Course and Exam</b> <b>Description (CED)</b> <b>AP Exam Overview</b> <b>IPRs and AP Course Audit</b> <b>Updated Course Framework</b> <b>Overview of Course Skills</b> <b>Exploring the Unit Guides</b> <b>Fall Registration</b> <b>Instructional Approaches</b>	<b>AP Classroom</b> • Personal Progress Check • AP Question Bank • Progress Dashboard  <b>Modeling APSI Activities</b>  <b>Unit 2 – Differentiation:</b> <b>Definition and Basic Rules</b> • Content Check • Explore MC and FRQ	<b>Unit 4 – Contextual</b> <b>Applications of</b> <b>Differentiation</b> • Content Check • Explore MC and FRQ  <b>Unit 5 – Analytical</b> <b>Applications of</b> <b>Differentiation</b> • Content Check • Explore MC and FRQ	<b>Unit 6 – Integration and</b> <b>Accumulation of Change</b> • Content Check • Explore MC and FRQ  <b>Unit 7 – Differential</b> <b>Equations</b> • Content Check • Explore MC and FRQ	<b>2022 Test</b>
PM	<b>UbD Approach</b>  <b>Unit 1 – Limits and</b> <b>Continuity</b> • Content Check • Explore MC and FRQ	<b>Unit 3 – Differentiation:</b> <b>Composite, Implicit and</b> <b>inverse functions</b> • Content Check • Explore MC and FRQ  <b>Unit 4 – Contextual</b> <b>Applications of</b> <b>Differentiation</b> • Content Check	<b>Unit 6 – Integration and</b> <b>Accumulation of Change</b> • Content Check • Explore MC and FRQ	<b>Unit 8 – Applications of</b> <b>Integration</b> • Content Check • Explore MC and FRQ	

## Course Objectives

1. Understanding the Course
2. Planning the Course
3. Teaching the Course
4. Assessing Student Progress and Understanding
5. Becoming a Member of the AP Community

## Graduate Programs in Education Outcomes:

- GPE001: Knowledge - Theory: Apply knowledge of psychological and educational theory, research, and/or philosophy related to the area of specialization or certification.
- GPE002: Knowledge - Assessments: Demonstrate understanding and use of the types of assessments appropriate to the area of specialization or certification.
- GPE005: Skills - Theory: Demonstrate the ability to incorporate theory and research into practice related to the area of specialization.
- GPE006: Skills - Data: Demonstrate the ability to gather appropriate data and use data in problem analysis and decision-making related to the area of specialization.
- GPE007: Skills - Problem Solving: Use problem solving/critical thinking strategies appropriate to the area of specialization.
- GPE008: Skills - Reflection: Use reflective practice within the area of specialization.
- GPE009: Skills - Communication: Demonstrate effective communication and presentation skills related to the area of specialization.
- GPE010: Skills - Technology: Use a variety of technologies appropriate for working in the area of specialization.
- GPE012: Dispositions - Diversity: Demonstrate positive dispositions toward diversity and equity.
- GPE013: Dispositions - Professionalism: Demonstrate professionalism in one's demeanor, behavior, conduct, decision-making, and interactions with colleagues.

Bibliographical references and complimentary textbooks will be shared in class. Please plan to share activities, websites, and strategies during the institute. All submissions will be compiled and distributed to all.

**Requirements for Graduate Credit** – all documents must be submitted electronically at the end of the institute or within two weeks of the completion of the institute. Use the email address listed above.

- Create an outline of how this CED will change the content of your course with reference to the Big Ideas of AP Calculus AB
- Creation of an action plan for implementation of new instructional strategies for your course next year.
- Evaluation of the course.
  - What did you like?
  - What did you not like?
  - What should I do differently next time?

***If you are taking the course for credit, no absences are permitted.  
You must attend full time on all five days to receive graduate credit.***

**Instructions to receive a copy of Credits Earned after the completion of the course:**

**Grading and Transcript Information**

- Goucher College does not issue grade reports. You can obtain your grade approximately 3 weeks after concluding the course by going to the myGoucher website (myGoucher) and following the prompts to receive your grade. If you have misplaced your password, please contact the help desk (helpdesk@goucher.edu) and they will help you through this procedure.
- If you need a paper copy of grades for tuition reimbursement, you will need to request a transcript in writing. You can fax your request to 410-337-6504 or mail to:

Goucher College  
Registrar's Office  
1021 Dulaney Valley Road  
Baltimore, MD 21204

There is no charge for this request. Please allow 3-5 working days to process. To access the transcript request form, please go to [Transcript-Request.pdf \(goucher.edu\)](#).

Questions? Please call the Welch Center Office at 410-337-6200.