

# BC-Calculus 2

Evan Brummet, Lingyi Meng, Brent Yen

Fall Semester, 2019

E-mail: ebrummet@imsa.edu

Office Hours: Mods 2,3,5,8

Office: A157

Class Room: A150

Class Time: Mod 1, ABCD days

---

E-mail: lmeng@imsa.edu

Office Hours: Mods 1,3,5,7

Office: A157

Class Room: A148

Class Time: Mod 6, ABCD days

---

E-mail: byen@imsa.edu

Office Hours: Mods 1,3,4,6

Office: A157

Class Room: A150/A148

Class Time: Mods 2,5,8 ABCD days

---

## Course Description

BC Calculus is a three-semester sequence, which includes the material covered in the Advanced Placement BC Calculus syllabus. This second course will continue the study of derivatives and begin work on concepts and applications of integrals. With help from technology, these will be seen from graphical, numerical, and analytic points of view.

## Required Materials

- Text: Hughes-Hallet, Gleason, McCallum. (2009). *Calculus - Single Variable*, 5th ed. Pearson.
- Access to Google Classroom: course code **fpsj3ap**.

## Course Structure

### Class Structure/Course Expectations

This course will be taught similar to other courses in the sequence. Learning will often take place via meaningful collaboration on worksheets designed by IMSA faculty. Homework assignments will be given daily, and quizzes will occur every 1-3 weeks. It is up to the students to determine

if additional practice is necessary to be prepared for quizzes. It is an expectation that students are taking detailed notes and reading in the text to remain fully comfortable with the material.

## Assessments

Homework will be given daily, consisting of problems from the text, worksheets, and occasional supplemental problems. Students are expected to use precise mathematical language and reasoning. Not all problems will be graded. The instructor will either check completion/accuracy of homework or, on the given due date, we will have a closed-note quiz where students will complete a selection of their assigned problems. Homework assignments will be posted on Google Classroom.

For each unit, there will be approximately 1-2 Take-Homes. Take-Homes are 1-5 question assignments that will be more challenging. Students will be given at least one week to complete them and all problems will be graded. These questions will not show up on a homework quiz. All assignments will be posted on Google Classroom. It is up to the students to set aside enough time to complete them.

There will be approximately 1-2 quizzes for each chapter. Quizzes will be announced at least a week ahead of time. There are no retakes for any quizzes.

## Final Exam

The final exam will be on **Monday, December 16, 2019**.

## Grading Policy

Your semester grade will be calculated under the following guidelines.

### Quarter grade

- 75% from Quizzes
- 25% from Homework, Take-Homes, etc.

### Semester grade

- 80% from cumulative semester work
- 20% from semester final exam

## Course Policies

### During Class

Unless instructed otherwise, please refrain from using cell phones, laptops, or listening to music during class as it hinders the learning of you and the students around you.

### Policies on Late Assignments

Late work for daily homework assignments will be accepted for half credit the day after it is due; after one day, it will not be accepted. For Take-Homes, the students will be penalized approximately 10% for each day that the assignment is late.

## Schedule and weekly learning goals

The course will be broken down into six units. These units are not finalized and are subject to change:

Unit 1: Review of BC-1, Related Rates, Optimization

Unit 2: Parametric Equations

Unit 3: Area Approximation, Definite Integrals

Unit 4: Euler's Method, Fundamental Theorem of Calculus

Unit 5: Integration Techniques

Unit 6: Area & Volume with Integrals

## Disclaimer

The instructor reserves the right to make changes to the syllabus. Please consult Google Classroom for any updates.