

Johns Hopkins University

AS 110.202 – Online Calculus III

Instructors

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Course Information

Description: Calculus of functions of more than one variable, partial derivatives, applications, multiple integrals, line integrals, surface integrals, Green's Theorem, Stokes' Theorem, and Gauss' Divergence Theorem.

Textbook: Vector Calculus by Jerrold Marsden and Anthony Tromba, W.H. Freeman; 6th Edition. ISBN-10: 1429215089

Class Meetings

Live lectures (each 90 minutes long) will be held Monday through Thursday in Adobe Connect. All lectures will be recorded. Links to the live lectures and recordings will be posted in the course calendar in Blackboard.

Homework

In order to master the material, there will be required homework problems. HW assignments will be posted in Blackboard. Homework will be due on Mondays (end of day, ET). Scan and upload your homework solutions to Blackboard as a PDF. Make sure scanned HW is readable before you submit it.

Exams

There will be 2 midterm exams and a comprehensive final exam. Dates TBA.

On each exam weekend, materials will be emailed to off-campus proctors by Thursday, and will be due back by 5pm ET on Sunday. An on-campus exam site and time will also be offered. Please see the following website for more information on proctoring requirements: <http://mathematics.jhu.edu/online-summer-math-courses/proctor-and-exam-information>

Grading

The final grade breakdown is as follows:

- 20% Homework
- 20% Midterm 1
- 20% Midterm 2
- 40% Final Exam

Topics Covered

Chapter 1 (Vectors, Matrices, Geometry)

Chapter 2 (Limits, Partial Derivatives, Differentiation, Chain Rule)

Chapter 3 (Higher Derivatives, Taylor's Theorem, Applications)

Chapter 4 (Divergence, Curl, Arc Length, More Applications)

Chapter 5 (Double and Triple Integrals)

Chapter 6 (Change of Variables)

Chapter 7 (Line Integrals, Surface Integrals)

Chapter 8 (Green's/Stokes'/Gauss' Theorems, Conservative Fields)

<http://mathematics.jhu.edu/wp-content/uploads/sites/62/2015/07/110.202CalculusIIISyllabus.pdf>