

Math 194 - Calculus - Fall 2012

SYLLABUS

Units: 5

Prerequisite: Math 192 or satisfactory score on the ACCUPLACER exam.

CRN: 10461

Meeting Time: MW 18:30-21:00

COURSE/CATALOG DESCRIPTION:

Concepts dealing with integration applications, methods of integration, infinite series, plane analytic geometry, parametric equations, and polar coordinates.

Professor: Eric Lehtonen

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Office: 2763

TR 5:15-6:15

Office hours: MW 11:00-12:00

Calculators: You are allowed a scientific calculator.

Text: Calculus, Stewart, 7th edition.

Grading:

Final Exam 30% There will be a comprehensive final exam

Exams 50% There will be 3 Exams. Please note the tentative test schedule in the lecture schedule.

Take Home Tests 20% There will be 5 take home tests given.

Homework: Homework will be assigned each class. It will **not** be collected.

Attendance: Students not attending the first day of class will be automatically dropped. Students missing more than one week worth of classes, dating from when the student first enters the class will be dropped.

Any student with a documented disability who may need educational accommodation should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible.

Student Learning Outcomes:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Demonstrate understanding of various techniques of integration (ILO2)
2. Demonstrate ability to solve applications of integration. (ILO1, ILO2, ILO4)
3. Demonstrate ability to apply various tests for convergence determination. (ILO2)
4. distinguish the various types of conic sections (ILO2)
5. Demonstrate knowledge of the polar system of coordinates. (ILO2)

Course Objectives:

Upon satisfactory completion of the course, students will be able to:

1. Demonstrate the ability to solve many problems in diverse areas, in a step-by-step manner, when dealing with applications of integration.
2. Demonstrate knowledge and understanding of various methods used in mathematical integrations.
3. Be introduced to various indeterminate forms and be able to evaluate improper integrals.
4. Recognize infinite sequences and infinite series and will apply various tests for convergence determination.
5. Demonstrate knowledge in series expansion and the concept of power series.
6. Will learn and distinguish the various types of conic sections.
7. Demonstrate knowledge of the polar system of coordinates and its use in applications.

Lecture And Test Schedule

Week 1

Aug 21 **Introduction**

Aug 23 5.1,5.2

Week 2

Aug 28 5.3,5.4

Aug 30 5.5, **Review**

Week 3

Sep 4 **Test 1**

Sep 6 7.1

Week 4

Sep 11 7.2

Sep 13 7.3

Week 5

Sep 18 7.4,7.5

Sep 20 7.7,7.8

Week 6

Sep 25 8.1, **Review**,

Sep 27 **Test 2**

Week 7

Oct 2 8.2

Oct 4 8.3,8.4

Week 8

Oct 9 10.1,10.2

Oct 11 10.3

Week 9

Oct 16 10.4

Oct 18 10.5, **Review**

Week 10

Oct 23 **Test 3**

Oct 25 11.1,11.2

Week 11

Oct 30 11.3

Nov 1 11.4

Week 12

Nov 6 11.5

Nov 8 **Test 4**

Week 13

Nov 13 11.6,11.7

Nov 15 11.8

Week 14

Nov 20 11.9

Nov 22 11.10

Week 15

Nov 27 **Test 5**

Nov 29 **Thanksgiving**

Week 16

Dec 4 **Review**

Dec 6 **Final Exam!!**