Syllabus for Math 264-06: Unified Calculus and Analytic Geometry, IV
Spring 2019

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Course Information

Text: Calculus, Early Transcendentals w/ binder + MyMathLab by William Briggs & Lyle Cochran
ISBN: 9781256652533
Time/Place: T.TH. 2:30-3:45 PM, Honors College 027

Course description

This course is the fourth part of the standard university Calculus sequence, intended to introduce the student
to the concepts of multivariable calculus, including partial derivatives, multiple integrals and vector calculus
(Chapters 12, 13, and 14).

Course learning objectives

The successful student will acquire a good knowledge of the topics studied in the course, some of which
have been described above. This will prepare the student for higher level Engineering courses, Differential
Equations courses, and some upper level Mathematics courses.

Lecture notes and homework

Keeping a good set of lecture notes and doing the homework is a must to perform well in this class. Referring
to the examples developed in class should be of great help for solving the homework problems.

Tests, quizzes, and final exam

1. There will be 4 quizzes, each counting 20 points.
2. Tests: There will be 3 tests, each counting 100 points. The tests questions will be similar in content to the
   examples in class, quizzes and homework problems. No make up tests will be given for any reason except
   for an official University function to be communicated to the instructor with enough time in advance. Any
   student who will miss one of the tests because of an official University function must reschedule and take
   this test at a time before the test is scheduled to be given. No other rescheduling will be allowed.
3. Final exam: There will be a final exam counting 100 points. Every student must take the final exam at
   the time scheduled. The only exceptions are those students affected by an official University function.

   • Test 1 on Tuesday, February 12
   • Test 2 on Thursday, March 7
   • Test 3 on Thursday, April 11
   • Final on Tuesday, May 7 at 4:00 PM
   • Quizzes: February 5, February 28, April 2, April 30.

Final grade

The cumulative point total for the course is 480 points, distributed as follows. Quizzes 80, tests: 300, final
exam: 100. The following point scale will be used to determine your final grade: A is 93%, A- is 90%, B+ is
87%, B 83%, B- is 80%. C+ is 77%, C 70%, D is 60%, F is less than 60%

An “I” grade will not be given without the permission of the Department of Mathematics.

Attendance policy

Attendance is mandatory. It is the student’s responsibility to make sure his/her attendance record is correct.
Cheating

Students caught cheating during any of the course evaluations will be reported immediately. Any study note in the student’s possession or use of his/her cell phone at the time of the examination will be reported as cheating.

The following statement is the policy of the Department of Mathematics regarding cheating:

Cheating on any exam or quiz, theft or attempted theft of exam questions, possession of exam questions prior to the time for examination, or the use of an illegal calculator on tests or quizzes shall all be offenses subject to appropriate penalties.

Calculators, electronic devices

Calculators are prohibited on all evaluations. All cellular phones, pagers, and other electronic equipment must be turned off during the class period.

Deadlines

Monday, February 4 is the last day to register or add classes and the refund period ends. Monday, March 4 is the deadline for course withdrawals. After the course withdrawal deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the academic dean; dropping a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student is changing his/her major.

Academic needs

It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Contact will then be made by that office through the student to the instructor of this class. The instructor will then work with the student so that a reasonable accommodation of any disability can be made.
TENTATIVE TEST DATES AND HOMEWORK ASSIGNMENTS

TEST 1 (Tuesday, February 12)

Chapter 12. Functions of Several Variables.
- Planes
- Limits and continuity
- The chain rule
- Directional derivatives and the gradient
- Tangent plane

TEST 2 (Thursday, March 7)

Chapter 12. Functions of Several Variables.
- Maximum/Minimum problems
- Lagrange multipliers

Chapter 13. Multiple Integration.
- Double integrals over rectangular regions
- Double integrals over general regions
- Double integrals in polar coordinates

TEST 3 (Thursday, April 11)

Chapter 13. Multiple Integration.
- Triple integrals
- Triple integrals in cylindrical and spherical coordinates
- Change of variables in multiple integrals

- Vector fields
- Line integrals

FINAL EXAM (Tuesday, May 7 at 4:00 PM)

The final exam will include the following topics not listed above from

- Conservative vector fields
- Green’s theorem
- Surface integrals
- Stoke’s theorem
- Divergence theorem
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