

MAC 2313

CALCULUS III

FALL SEMESTER 2007

Text: **Calculus, J. Stewart, 5th Edition**

Prerequisite: Calculus II (MAC 2312)

Course Description: Calculus III is a study of analytic geometry with vectors in two and three dimensions, and the calculus (derivatives and integrals) for vector-valued functions and functions of several variables. The course covers most of Chapters 13 through 17 in the text and the topics include the dot and cross product, curves and surfaces in space, partial derivatives, maximum and minimum values for functions of several variables, multiple integrals, line integrals, and vector calculus.

Comments: The grade is based on 4 tests (in-class, closed book) worth 100 points each, and a comprehensive final exam worth 200 points. There are no make-up tests and a missed test is counted as a zero. However, the final exam, in addition to counting as a final exam worth 200 points, is used as test 5 where it is worth 100 points. The best 4 out of 5 test scores plus the final exam score (a maximum of 600 points) are used to compute the final average.

Letter grades are based on the standard grade scale. 90-100% A; 80-89% B; 70-79% C; 60-69% D; 0-59% F.

Important Dates: Holidays: Sept. 3; Nov. 12, Nov. 22-24
Withdrawal deadline: Oct. 12

Instructor: Dr. R.S. Rodriguez
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Office Hours: MW 10:30-11:30
T Th 1:30-3:00

Syllabus:

1st Week Aug. 20-24

1. Section 13.1, 13.2
2. Section 13.2, 13.3

2nd Week Aug. 27-31

3. Section 13.4
4. Section 13.5

3rd Week Sept. 3-7

5. Section 13.6
6. Section 13.7, 14.1

4th Week Sept. 10-14

7. Section 14.1, 14.2
8. Review; Test 1

5th Week Sept. 17-21

9. Section 14.3
10. Section 14.4 (Kepler's Laws are optional)
Section 15.1

6th Week Sept. 24-28

11. Section 15.2
12. Section 15.3, 15.4

7th Week Oct. 1-5

13. Section 15.5, 15.6
14. Review, Test 2

8th Week Oct. 8-12

15. Section 15.7
16. Section 16.1, 16.2 (Drop Deadline)

9th Week Oct. 15-19

17. Section 16.3
18. Section 16.4, 16.6 (omit 16.5)

10th Week Oct. 22-26

19. Section 16.7
20. Review; Test 3

11th Week Oct. 29-Nov. 2

21. Section 16.8
22. Section 17.1, 17.2

12th Week Nov. 5-9

23. Section 17.3
24. Section 17.4

13th Week Nov. 12-16

25. Section 17.5, 17.6
26. Section 17.7

14th Week Nov. 19-23

27. Review, Test 4
28. Holiday

15th Week Nov. 26-30

29. Section 17.8, 17.9
(Sections 17.8 and 17.9 are optional)
30. Section 17.9, Review

16th Week Dec. 3-7

FINAL EXAM