

Math 33, Multivariable Calculus

Dr. Xiaofeng Ren

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Office hours: 3:00 PM - 4:00 PM, WF, or by appointment.

Class time and place. 11:10AM - 12:25PM Wednesday and 12:45PM - 2:00PM Friday, Duques 151. You must also register for one of the following three recitation sessions.

1. Section 30: 8:00AM - 8:50AM, Thursday, Duques 358.
2. Section 31: 2:20PM - 3:10PM, Thursday, Monroe 251.
3. Section 33: 3:55PM - 4:45PM, Thursday, Monroe 350.

Course Objectives: 1. Students will be able to work with partial derivatives and multiple integrals. 2. Students will be able to use derivatives to solve optimization problems. 3. Students will learn the importance of Green's theorem, divergence theorem, and Stokes' theorem. 4. Students will be able to solve some curve and surface related geometric problems.

Textbook. Calculus, Sixth Edition, by Stewart.

Your grade.

Grade (100%) = Final exam (40%) + Two Midterm exams (40%) + Homework (20%)

Homework. Each Friday homework will be assigned. It will be collected the following Friday.

Tentative schedule.

09/02: 13.1-13.6	09/04: 14.1-14.3	09/09: 15.1-15.2	09/11: 15.3
09/16: 15.4	09/18: 15.5	09/23: 15.6	09/25: 15.7
09/30: 15.8	10/02: review	10/07: midterm 1	10/09: 16.1
10/14: 16.2	10/16: 16.3	10/21: 16.4-16.5	10/23: 16.6
10/28: 16.7	10/30: 16.8	11/04: 16.9	11/06: review
11/11: midterm 2	11/13: 17.1-17.3	11/18: 17.4-17.5	11/20: 17.6-17.7
11/25: 17.8	11/27: Thanksgiving	12/02: 17.9	12/04: review

Homework problems.

1. 13.1: 30, 32, 38.
13.2: 30, 36.
13.3: 24, 28, 52.
13.4: 6, 20, 30.
13.5: 6, 8, 26, 28, 30, 44, 46, 52.
13.6: 22, 28, 42, 46.
14.1: 16, 26, 28, 42.
14.2: 10, 14, 18, 20, 22, 26.
14.3: 4, 6, 18, 20, 24, 28, 32, 44.
2. 15.1: 8, 10, 30, 62, 64, 66.
15.2: 6, 8, 10, 12, 14, 16, 18, 20, 22, 26, 34, 36, 38, 40.
15.3: 16, 20, 24, 28, 32, 36, 40, 46, 48, 52, 54, 58, 66, 72, 74, 76, 94.
3. 15.4: 4, 6, 14, 16, 18, 26, 28, 36.
15.5: 2, 4, 6, 8, 10, 12, 18, 20, 24, 26, 28, 30, 34, 46, 48, 52, 56.
4. 15.6: 6, 8, 10, 14, 16, 20, 24, 26, 30, 34, 40, 42, 48, 50, 52.
15.7: 6, 8, 10, 12, 14, 20, 30, 32, 34, 36, 40, 42, 46, 48, 56.
5. 15.8: 4, 6, 8, 10, 12, 14, 16, 18, 26, 40, 46.
6. 16.1: 2, 12.
7. 16.2: 4, 6, 10, 16, 18, 22, 26, 28, 30, 36.
16.3: 4, 6, 10, 12, 18, 20, 24, 28, 32, 34, 42, 46, 48, 56, 60.
8. 16.4: 6, 10, 12, 14, 16, 18, 20, 24, 26, 28, 30, 32.
16.5: 28, 30, 32.
16.6: 4, 8, 10, 14, 16, 20, 22, 28, 20, 52.
9. 16.7: 4, 10, 12, 18, 20, 22, 26, 28.
16.8: 4, 8, 14, 22, 24, 26, 28, 36, 44.
10. 16.9: 4, 6, 12, 14, 20, 22, 24.
11. 17.1: 12, 14, 22.
17.2: 2, 6, 10, 14, 20, 22, 40.
17.3: 4, 6, 8, 12, 14, 16, 18, 20, 22.
12. 17.4: 2, 4, 6, 8, 12, 14, 18.
17.5: 2, 4, 8, 12, 14, 16, 20, 22, 32.
17.6: 2, 4, 16, 18, 20, 24, 34, 38, 42, 44, 46.
17.7: 6, 8, 10, 14, 18, 20, 24, 26, 30, 38.
13. 17.8: 2, 4, 6, 8, 10, 14, 16, 18.
14. 17.9: 2, 4, 6, 8, 10, 12, 14, 18, 24, 28.