

# MAT 214 – Calculus III

## Calculus of Several Variables

### Assignments

Spring Semester, 2009

Assignments are listed by the **date due**. A PDF version of this page is available for printing.

These are exercises designed to prepare you for the quizzes and the test. Your solutions will not be collected so that you may have free exchanges with other students about these exercises.

**Thu., May. 14:**

**Final Examination:** 10:30 – 12:30 in ES 139

**Exam Period Office Hours**

Tue, May 12            2:30 – 4:00  
Wed, May 13            2:30 – 4:00  
or by appointment    campus email: hammond

**Tue., May. 5:**

**Last class meeting before the exam**  
**Expect a quiz**  
**Bring review questions**  
**Review Sheet on Curve and Surface Integrals<sup>1</sup>** (also available as PDF<sup>2</sup>)

**Thu., Apr. 30:**

**Read:** § 16.9

**Exercises:**

§ 16.7: 47  
§ 16.8: 7, 15, 16, 19  
§ 16.9: 1, 7, 9, 25 – 27, 31

**Wed., Apr. 29:**

**Expect a quiz**

**Read:** § 16.8

**Exercises:**

§ 16.6: 35, 47, 55  
§ 16.7: 22, 28, 35, 43  
§ 16.8: 1, 2, 5

**Tue., Apr. 28:**

**Read:** § 16.7

**Exercises:**

§ 16.5: 21, 31  
§ 16.6: 23, 26, 33, 37, 41  
§ 16.7: 4, 5, 15, 19, 25

**Thu., Apr. 23:**

Expect a **quiz**

**Read:** § 16.6

**Exercises:**

§ 16.3: 20, 27, 33

---

<sup>1</sup>URI: <http://math.albany.edu/pers/hammond/course/rcsi214.xhtml>

<sup>2</sup>URI: <http://math.albany.edu/pers/hammond/course/rcsi214.pdf>

- § 16.4: 18, 21, 27
- § 16.5: 8, 17, 19
- § 16.6: 3, 6, 19, 20

**Wed., Apr. 22:**

**Read:** § 16.5  
**Exercises:**

- § 16.3: 12, 14, 15, 19
- § 16.4: 9, 11, 13, 17
- § 16.5: 1, 2, 5, 12, 15

**Tue., Apr. 21:**

**Class cancelled due to illness;** please stay with the assignments

**Read:** §§ 16.3 – 16.4  
**Exercises:**

- § 16.2: 15, 21, 33, 39, 43
- § 16.3: 3, 5, 7, 11
- § 16.4: 1, 3, 5, 7

**Thu., Apr. 16:**

**Read:** § 16.2  
**Exercises:**

- § 15.8: 35
- § 15.9: 24
- § 16.1: 25, 26, 28, 34
- § 16.2: 1 – 4, 7, 8, 14

**Wed., Apr. 15:**

Expect a **quiz**  
**Read:** § 16.1  
**Exercises:**

- § 15.8: 23, 27, 30
- § 15.9: 17(a), 21
- § 16.1: 11 – 14, 21 – 24

**Tue., Apr. 14:**

**Read:** § 15.9  
**Exercises:**

- § 15.7: 21, 22, 25, 26
- § 15.8: 11, 15, 17, 19, 20, 21
- § 15.9: 1 – 3, 7, 10, 13

**Wed. Apr. 8 – Mon. Apr. 13**

University in recess

**Tue., Apr. 7:**

Expect a **quiz**  
**Read:** § 15.8  
**Exercises:**

- § 15.6: 22, 27, 31, 33, 39, 51
- § 15.7: 11, 15, 17, 18
- § 15.8: 1 – 10

**Thurs., Apr. 2:**

**Read:** § 15.7  
**Exercises:**

- § 15.6: 6 – 11, 13, 15, 17, 19

§ 15.7: 1 – 10

**Wed., Apr. 1:**

Expect a **quiz**

**Read:** § 15.6

**Exercises:**

§ 15.4: 21, 25, 29, 31, 35

§ 15.5: 15, 16, 27, 29

§ 15.6: 1 – 5

**Tues., Mar. 31:**

**Read:** § 15.5

**Exercises:**

§ 15.3: 24, 28, 43, 45

§ 15.4: 13, 15, 18

§ 15.5: 1, 5, 11

**Thu., Mar. 26:**

**Read:** § 15.4

**Exercises:**

§ 15.2: 35, 38

§ 15.3: 13, 17, 20, 21

§ 15.4: 7, 9, 11

**Wed., Mar. 25:**

**Hour Test**

**Tue., Mar. 24:**

**Read:** § 15.3

**Exercises:**

§ 15.2: 23, 27, 32

§ 15.3: 3, 5, 7 – 10, 19

**Thu., Mar. 19:**

**Read:** § 15.2

**Exercises:**

§ 14.8: 25, 26, 41, 45

§ 15.1: 17

§ 15.2: 3, 9, 17, 19

**Wed., Mar. 18:**

Expect a **quiz**

**Read:** § 15.1

**Exercises:**

§ 14.7: 51

§ 14.8: 12 – 14, 15, 19

§ 15.1: 1, 7, 13

Course Handout on *Extreme Values*<sup>3</sup> (also available as PDF<sup>4</sup>)

**Tue., Mar. 17:**

**Read:** § 14.8

**Exercises:**

§ 14.6: 36, 39 – 41, 43, 48, 49, 57

§ 14.7: 31, 41, 43

---

<sup>3</sup>URI: ../extremes.xhtml

<sup>4</sup>URI: ../extremes.pdf

§ 14.8: 3, 6, 11

**Thu., Mar. 12:**

**Read:** § 14.7

**Exercises:**

§ 14.5: 22, 25, 27, 32, 55

§ 14.6: 7, 10, 11, 19, 23, 27, 29

§ 14.7: 1, 6, 13

**Wed., Mar. 11:**

Expect a **quiz**

**Read:** § 14.6

**Exercises:**

§ 14.3: 65, 71, 72(a, c, e)

§ 14.4: 37, 43

§ 14.5: 11 – 13, 15, 17

§ 14.6: 4 – 6

**Tue., Mar. 10:**

**Read:** § 14.5

**Exercises:**

§ 14.3: 41, 45, 46, 50, 51, 54, 57, 62

§ 14.4: 18, 19, 21, 28, 31, 33, 35

§ 14.5: 1 – 5, 7

**Thu., Mar. 5:**

Expect a **quiz**

**Read:** § 14.4

**Exercises:**

§ 14.2: 30, 35, 36

§ 14.3: 27 – 31, 33, 36, 37, 40

§ 14.4: 1, 3, 4, 11, 12, 15, 17

**Wed., Mar. 4:**

**Read:** § 14.3

**Exercises:**

§ 13.3: 45, 49, 53

§ 14.1: 55 – 60

§ 14.2: 18, 19, 21, 25

§ 14.3: 5, 15, 18, 21, 22, 24

**Tue., Mar. 3:**

**Read:** § 14.2

**Exercises:**

§ 13.3: 33, 41, 43

§ 13.4: 25, 33, 35, 37

§ 14.1: 13, 17, 18, 25, 27

§ 14.2: 1, 7, 9, 13, 15

**Thu., Feb. 26:**

**Read:** § 14.1

**Exercises:**

§ 13.3: 20, 22, 23, 25, 28

§ 13.4: 11, 13, 15, 19, 22

§ 14.1: 1 – 3, 6 – 8, 10

**Wed., Feb. 25:**

**Hour Test**

**Tue., Feb. 24:**

**Read:** § 13.4

**Exercises:**

§ 13.2: 32, 33, 35, 39, 45, 47, 49

§ 13.3: 12, 13, 15 – 17

§ 13.4: 4, 5, 7, 10

**University Recess**

Week from Feb 15 to Feb 21

**Thu., Feb. 12:**

**Read:** § 13.3

**Exercises:**

§ 13.1: 26 – 28, 35, 41

§ 13.2: 3, 6, 19, 27, 31

§ 13.3: 1, 3, 5, 7, 9, 11

**Wed., Feb. 11:**

Expect a **quiz**

**Exercises:**

§ 13.1: 11, 17, 19 – 24

§ 13.2: 9, 13, 15, 21, 25

**Tue., Feb. 10:**

**Read:** § 13.2

**Exercises:**

§ 12.5: 38, 44, 48 – 51, 55

§ 12.6: 21 – 28, 29, 31, 33

§ 13.1: 1, 2, 4, 6, 9

**Thu., Feb. 5:**

Expect a **quiz**

**Read:** § 13.1

**Exercises:**

§ 12.4: 33, 37, 43 – 45

§ 12.5: 15, 18, 19 – 21, 23, 26, 31

§ 12.6: 3, 5, 8

**Wed., Feb. 4:**

**Read:** § 12.6

**Exercises:**

§ 12.3: 26, 27, 29, 34, 35, 37

§ 12.4: 13, 16, 19, 28, 29

§ 12.5: 2, 4, 5, 7, 13

**Tue., Feb. 3:**

Expect a **quiz**

**Read:** § 12.5

**Exercises:**

§ 12.2: 36, 38 – 40

§ 12.3: 11, 13, 19, 22, 25

§ 12.4: 1, 3, 7, 9, 11, 18

**Thu., Jan. 29:**

**NOTE:** This class was cancelled because the instructor could not be present. The assignment stands.

**Read:** § 12.4

**Exercises:**

- § 12.1: 23, 39
- § 12.2: 19, 22, 25, 31
- § 12.3: 1–3, 5, 7, 17, 23

**Wed., Jan. 28:**

**Class meeting cancelled** following a general announcement by the University at 10:30 a.m. cancelling all classes for the rest of the day due to weather conditions.

**Tue., Jan. 27:**

**Read:** § 12.3

**Exercises:**

§ 12.1: 17, 19, 20, 21, 27

§ 12.2: 3–5, 13, 15, 17

**Thu., Jan. 22:**

**Read:** §§ 12.1–12.2

**Exercises:**

§ 12.1: 3, 4, 7, 9, 11, 13, 15

**Wed., Jan. 21:**

**First meeting:** no assignment.

---

UP | TOP | Department