

Math 205 Section 15, Spring 2012–Syllabus

Course Information and Policies

Instructor: Prof. Bruce Dodson

Schedule of lectures and homework

The following schedule is tentative and subject to revision as necessary. Also recall that homework will be officially assigned by section as the course progresses.

Note: Occasionally the book gives directions to solve homework problems by a specific method. Unless otherwise instructed, you may use any correct method to solve the problems.

- Week 1a **1.1:** 7, 9, 11
1.2: 7, 10, 11, 16
1.3: 8, 12, 13
1.4: 3, 4, 6, 7, 13, 18
1.5: 1, 2, 3, 4
1.6: 3, 4, 5, 7, 8, 12, 14, 15, 17
- Week 1b **1.7:** 1, 2, 4, 5, 6
2.1: 10, 11, 14, 15
2.2: 1, 3, 10, 13, 15
2.3: 1, 3, 5, 6, 9, 10
- Week 2a **2.4:** 10, 11, 12, 16, 18, 20, 24
2.5: 1, 2, 4, 8, 10, 12, 14, 16, 33, 35, 44, 48
2.6: 4, 9, 10, 11, 14, 18, 19
- Week 2b **3.1:** 8, 11, 14, 18
3.2: 4, 10, 16
3.3: 11, 13, 14, 16, 19
3.4: 2, 3, 6, 7, 8, 10
4.1: 1, 2
- Week 3a **4.2:** 3, 4, 5
4.3: 3, 4, 6, 15, 18, 20, 21
4.4: 1, 6, 8, 9, 10, 11, 14, 22, 24
4.5: 1, 2, 4, 8, 29
4.6: 2, 3, 4, 10, 11, 13, 14, 21, 22
- Week 3b **4.7:** Coursesite 1, 3, 6, 8
4.8: 4, 8, 12
4.9: 3, 4, 10

- Week 4a **5.1:** 2, 3, 12, 17, 24, 26
5.3: 2, 4, 6, 7, 9
5.4: 3, 5, 9, 10, 11, 24
- Week 4b **5.6:** 2, 10, 11, 12, 14, 16, 18, 20
5.7: 1, 3, 4, 5, 6, 9, 10, 14, 20, 21, 22, 24
5.8: 4, 5, 8, 10, 12, 13
- Week 5a **5.5:** Coursesite 1, 4, 5, 6, 8, 10
6.1: 8, 9, 20, 23
6.2: 5, 6, 7, 8, 9, 10, 11, 13, 19, 20, 21, 22, 28, 30, 32, 33
6.3: 18, 19, 21, 28, 29, 30
- Week 5b **6.5:** 4, 8, 10, 23
6.6: 1, 4
7.1: 14, 16, 18
- Week 6a **7.4:** 1, 2, 3, 4, 5, 6, 9, 10, 12, 13, 18
7.6: 1, 2, 3, 4
7.2: 3, 7, 9
7.3: 1, 3, 5
review and catch-up

Note the following information on some of the homework problems:

Sections 4.7 and 5.5: The exercises are *not* taken from the book, but rather are posted on Coursesite.

Section 5.8: In problem 8, the characteristic polynomial is $-\lambda^2(\lambda - 3)$, and in problem 13, the characteristic polynomial is $-(\lambda - 2)^2(\lambda - 1)$.

Section 6.3: In problem 29, $D^3 - 2D^2 - D + 2 = (D - 1)(D + 1)(D - 2)$, and in problem 30, $D^3 - 3D^2 - 16D + 48 = (D + 4)(D - 4)(D - 3)$.

Section 7.4: In problem 12, the characteristic polynomial is $-(\lambda - 2)^2(\lambda + 1)$, in problem 13, the characteristic polynomial is $-\lambda^2(\lambda - 4)$, and in problem 18 the characteristic polynomial is $-\lambda(\lambda - 2)(\lambda - 4)$.

Also please note the following typo in the text. (There may be others, but this one was pointed out by a 205 student last semester.) On page 499, displayed equation (6.6.3) is correct, but the equation that follows is not. Instead of reading $r^2 + \frac{R}{L}r + \frac{1}{LC}C = 0$, it should read $r^2 + \frac{R}{L}r + \frac{1}{LC} = 0$.