

**Instructor:** Dr. Joanna Robinson  
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Office hours: MWF 11:00 - 11:45 a.m.,  
M W 2:00 – 2:45 p.m., R 4:30 – 5:15 p.m. or by appointment

**Textbook:** **Linear Algebra with Applications, Fifth Ed., Gareth Williams.**

**Material Covered:** The material covered in this course will be mostly taken from the following sections of the textbook:

Chapter 1, Sections 1.1-1.3  
Chapter 2, Sections 2.1 – 2.4  
Chapter 3, Sections 3.1 – 3.4  
Chapter 4, Sections 4.1 - 4.9  
Chapter 7, Section 7.4  
Chapter 8, Section 8.1  
Chapter 9, Sections 9.1 and 9.2

As part of this syllabus students are given a list of problems they are required to do. The Student Solutions Manual provides detailed solutions to all those problems. However, to derive the maximum benefit, students should solve the problems before turning to the student solutions manual to check their work.

**Tests:** There will be three major tests and a comprehensive final.

Test I Wednesday, February 9.  
Test II Wednesday, March 2.  
Test III Friday, April 15  
Final Exam: Wednesday, April 27 at 11:00 a.m.

There will be no make-ups, except in extraordinary circumstances.

**Grading:** two best of the three major tests: 60%  
comprehensive final: 40%

**Calculators:** Students should have a scientific or arithmetic calculator but are not required to have a graphing calculator. No calculators with matrix and/or graphing features will be allowed during tests.

In order to succeed in this course, one must work a large number of problems.

Here is a list of selected problems which are solved in the Student Solutions Manual which everyone is expected to do. Some students might find it necessary to have more practice; they should choose similar problems from each section and from review exercises.

Sec. 1.1: # 2, 5a,c, 6d,f,h, 7c,e, 8a,c, 9a,c, 10a,c, 11a,c, 12a.

Sec. 1.2: # 2a,c,g, 3a,c,e, 4a,c, 5c,e, 6a,e, 7a,e, 8a, d, g.

Sec. 1.3: # 1, 4

Sec. 2.1: # 1a,c,e, 2d, f, 3a, e, g, 4a,d,h, 5a,g, 8a, e, g, 9a, b, e, 10a, c, 16.

Sec. 2.2 # 1c, 2, 5a, 6a,c, 18a,c, 19a,c, 23,37a, 38a, b.

Sec. 2.3: # 1a,d,f, 2a.

Sec. 2.4: # 1c, 2a,c, 3a,c,e, 4a,c, 7a,c, 8a,c,e, 9c,e, 13, 15a,c, 16a,c, 17, 19, 36, 38.

Sec. 3.1: # 1a,c, 3a, 4a,c, 5a, 8a, 9a, 10a,c, 11a,c, 12, 14,16.

Sec. 3.2: # 1a,c, 3a,c, 4a, 5, 6a,c, 8a,c,e, 9a,c,e, 10a,c.

Sec. 3.3: # 1a,c, 2a,c, 3a,c, 14.

Sec. 3.4: # 1a,c, 3a,c, 4a, 5a, 6a, 8a,c, 10a, 12a, 13a,c, 14a,c, 15.

Sec. 4.1: # 1, 2, 3a, 5a,d, 6b,d, 9b,d, 10a,c.

Sec. 4.2: # 1a,c, 3a,c,e, 6a,b,e, 7a,c, 8a,e, 10a, 11a, 12c, 13a,c, 14b,d, 15, 16c,  
17b,d, 24.

Sec. 4.3: # 1, 2a

Sec. 4.4: # 1a, 2a, 6a,c, 7a, 9a, 10c, 12a, 19a,c, 25a.

Sec. 4.5: # 1a,c, 3a,d, 4b, 5a, 6a, 7c, 8a,c, 22a.

Sec. 4.6: # 1a, 2a,c, 3a, 4a, 5a,c, 6a,d, 7a,c, 10c.

Sec. 4.7: # 1a, 2a,c, 3a,b, 4a, 5a,c, 6a,b,d, f, 12, 13, 20c.

Sec. 4.8: # 1a,c, 2a,e, 3a,c, 5a, 12a.

Sec. 4.9: # 1a,b,d, 2a,b, 3a,c, 29.

Sec. 7.4: # 1, 3, 9, 15, 28.

Sec. 8.1: # 2b, 3a, 5a, 6a.

Sec. 9.1: # 1, 5, 8, 9, 11, 13.

Sec. 9.2: # 1, 4, 7, 10, 12.