## Math 2210Q Syllabus

Instructor: Jeffrey Connors
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Course webpage: www.math.uconn.edu/~connors/math2210f16/index.html
Office: ACD 114C

Office hours: MW 3:15-4:15 PM, or by appointment. Also, video-chat sessions may be possible (talk to me if you are interested in this option).

Class time and room: MWF 11:15 AM - 12:05 PM in ACD 304
Text: Linear Algebra and its Applications, Fifth Edition, by D. Lay, S. Lay and J. McDonald. Note: students may also use the fourth edition.

Homework: Homework will be assigned for each lecture and collected each Wednesday of the following week. Late homework is penalized at rate of $10 \%$ once late, with an additional $10 \%$ deduction for each full week that passes after the due date. Example 1: you turn it in the day after it is due, then there is a $10 \%$ deduction for lateness. Example 2: you turn it in the following Wednesday, 1 week after it was due. Then there is a total $20 \%$ deduction for lateness.

Quizzes: No quizzes.
Calculators: The use of calculators will not be permitted on exams. Calculators may be used on homework.

Grading policy: The course grade is $40 \%$ homework, $15 \%$ exam 1, $15 \%$ exam 2 and $30 \%$ for the final exam.

Make-up exams: These will only be available with permission granted prior to the start of the exam. There must be extenuating circumstances to receive permission for a make-up exam.

Final exam: The final exam is scheduled for Wednesday, Dec. 14 from 10:30 AM-12:30 PM in ACD 304. The exam is cumulative.

| Dates | Book Sections | Topics |
| :---: | :---: | :---: |
| Aug. 29-Sept. 2 | $1.1,1.2$ | Systems of linear equations, row reduction, echelon forms |
| Sept. 5 |  | Labor Day - no class |
| Sept. 7,9 | $1.3,1.4$ | Vector equations, matrix form |
| Sept. 12-16 | $1.5,1.7$ | Solution sets, linear independence |
| Sept. 19-23 | $1.8,1.9$ | Linear transformations |
| Sept. 26-30 | $1.10,2.1$ | Linear models, matrix operations |
| Oct. 3-7 | $2.2,2.3$ | Inverse matrices |
| Oct. 10 | - | Review for Exam 1 |
| Oct. 12 | - | Exam 1 |
| Oct. 14 | 3.1 | Determinants |
| Oct. $17-21$ | $4.1,4.2$ | Vector spaces and connections to linear transformations |
| Oct. 24-28 | $4.3,4.4$ | Linear independence, bases, coordinate systems |
| Oct. 31-Nov. 4 | $4.5,4.6$ | Dimension and rank |
| Nov. $7-11$ | $5.1,5.2$ | Eigenvectors, eigenvalues, characteristic equation |
| Nov. 14 | 5.3 | Diagonalization |
| Nov. 16 | - | Review for Exam 2 |
| Nov. 18 | - | Exam 2 |
| Nov. 21-25 |  | Thanksgiving break - no class |
| Nov. 28 - Dec. 2 | $6.1,6.2$ | Inner products, orthogonality, orthogonal sets |
| Dec. 5 | 6.4 | Gram-Schmidt process |
| Dec. 7 | 6.4 | Finish 6.4, begin review for final |
| Dec. 9 | - | Review for Final Exam |

