**MATH 2210Q – Section 001**
**Applied Linear Algebra**
**Fall 2016**

**Instructor:**
**Erin Rizzie, Ph.D.**
**MONT 411**
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**Meeting:** MWF 11:15 - 12:05 in MONT 112

**Office Hours:** Monday 3:30 – 5:00
Wednesday 1:30 – 3:00
or by appointment

**Text:** Linear Algebra And Its Applications, 4th ed. by David C. Lay, Addison-Wesley

**Prerequisite:** Math 1132 or 1152 **Note:** This course is a prerequisite for Math 3210.

**Goals & Expectations:** The goal for the semester is to learn, understand and be able to work with the main ideas of linear algebra, including systems of linear equations, matrices, vector spaces (concrete and abstract) and their bases, linear transformations and change of basis matrices, eigenvectors and eigenvalues, various matrix factorizations, and the applications of these ideas. This means that you should not only be able to work through a bunch of problems similar to ones seen in the homework, but also that you should have the ability to articulate the ideas presented in the course in a clear and coherent manner as well. You should be able to apply the theory in new and imaginative ways. This course will have concrete and abstract components. Being able to explain why something is true will constitute a significant part of the course.

**Homework:** The best way to learn math (or anything, for that matter) is to practice it daily. Homework will be assigned each class day and will be posted to HuskyCT (lms.uconn.edu). Although it will not always be collected, it is expected to be completed by the next class. Homework will be collected periodically, with at least one class period's notice, and graded for completion and, in part, for correctness. It is also expected that you prepare for class by looking over before class the material in the book that will be discussed in class that day. Homework is due at the start of class, and late work will not be accepted except in extenuating circumstances with proper documentation.

**Quizzes:** There will be quizzes given throughout the semester. Most of these will be in-class, individual, closed-book, closed-notes quizzes, but there may be some variations. Advance notice will not always be given for quizzes, so it is important to keep up with your homework, read the text, and review your notes regularly. Make-up quizzes will not be given. Your lowest quiz score will be dropped at the end of the semester.

**Grading Policy:** Your quizzes and exams will be returned to you in class in a timely manner, usually within a week. If there is a grading error, please talk to me privately after class on the day it is returned in order to resolve it. If we need to meet at a later date or if I need to review it further, I will take it with me. Once you leave the classroom with your assignment, the grade is final.

**Exams:** There will be two exams, tentatively scheduled for Wednesday, Oct. 5 and Wednesday, Nov. 9. The final exam will be comprehensive and will be scheduled by the university during the week of Dec. 12 - Dec. 18. The scheduled time will be announced in class and posted in HuskyCT once the exact date and time are known. All exams will be closed notes and closed book. There will be no make-up exams except in extenuating circumstances with a documented excuse. To reschedule or make up the final exam, you must contact the Office of the Dean of Students.

**Grading:**

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| Homework | 10% |
| Quizzes | 20% |
| Midterm Exam 1 | 20% |
| Midterm Exam 2 | 20% |
| Final Exam | 30% |

**How to Succeed in this Course:** For many of you, this course will involve more conceptual and abstract ideas than you are used to seeing in mathematics classes. This will take some adjustment, and now is the best time to develop the habits that will help you succeed. These include:

- actively reading the text before class to better understand the examples done in class
- actively listening and participating in class
- actively re-reading the text after class to help solidify your understanding
- working through the assigned homework (much of which should be done without your book/notes to prepare you for quizzes and exams), identifying any remaining trouble areas, and working through more problems or asking for help in those areas – either from me or from other students
- focusing on developing the ability to explain your ideas, both verbally and in writing, correctly using the vocabulary defined in the course
- finding your mathematics support community – classmates, office hours, Q center, etc.

**Academic Integrity:** Please respect your and others' work and academic experience. Cheating will be taken seriously. Examples of things that will be addressed include, but are not limited to, communicating with anyone other than me while any quiz or exam is underway, representing another person's work as your own (this includes work found on the internet or in a solutions manual), or bringing unauthorized materials to any quiz or exam. Consequences may include, but are not limited to, a score of zero on the quiz or exam, a grade of F in the course, or referral to the Academic Integrity Hearing Board. To read UConn's full policy on Academic Integrity, visit community.uconn.edu/the-student-code-appendix-a/.

**Tentative Course Schedule**

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| Aug. 29 - Sept. 16 * | Chapter 1 sections 1-5,7-9 |
| Sept. 19 - Sept. 28 | Chapter 2 sections 1-5 |
| Sept. 30 | Chapter 3 sections 1-2 |
| Oct. 3 (Mon) | Review for Exam 1 |
| Oct. 5 (Wed) | Exam 1 |
| Oct. 7 - Oct. 10 | Chapter 3 sections 2-3 |
| Oct. 12 – Nov. 4 | Chapter 4 sections 1-7 |
| Nov. 7 (Mon) | Review for Exam 2 |
| Nov. 9 (Wed) | Exam 2 |
| Nov. 11 - Nov. 14 | Chapter 5 sections 1-4 |
| Nov. 16 - Nov. 30 * | Chapter 6 sections 1-4 |
| Dec 2 - Dec. 5 | Chapter 7, sections 1-2 |
| Dec. 7 - Dec. 9 | Final Exam review |
| Dec. 12 - Dec. 18 | Final Exam week |

***No classes** Monday Sep. 5 for Labor Day and Saturday, Nov. 19 Through Sunday, Nov. 27 for Thanksgiving Break.