Math 2210Q Syllabus
Spring 2026

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Office: MONT 230
Office hours: M/W/F 1:15 PM - 2:15 PM. You can always drop in to see if I am available, or e-mail to set up an appointment.

Class time and room: M/W/F 2:30 PM - 3:20 PM in SHH 117.

Course description:
Systems of equations, matrices, determinants, linear transformations on vector spaces, characteristic values and vectors, from a computational point of view. The course is an introduction to the techniques of linear algebra with elementary applications.
Enrollment Requirements:
MATH 1132Q or MATH 1152Q or MATH 2142Q. Recommended preparation: a grade of C- or better in MATH 1132Q. May not be taken out of sequence after passing MATH 2144Q, 3210, 3510, or 3710. Repeat restrictions apply. See advising.uconn.edu/repeat-policy for information.
Skill Codes: COMP: Quantitative Competency

Text: *Linear Algebra and its Applications* by Lay, Lay and McDonald, Sixth Edition. Electronic bundle with MyLab Math for homework.

Homework: Homework will be assigned for each section and must be completed according to the schedule shown in the table below. We use the MyLab Math software online for this purpose. Links and registration information are available on the course page in HuskyCT.

Worksheets: These are weekly assignments like short homeworks, but the intention is to try and treat them like a quiz for self-assessment. There are two ways they can be done, explained below. Either way, once they are assigned, they are always due by the end of the next class. A schedule is provided in a table at the end of this syllabus.

1. *In-person option.* Paper copies will distributed and time will be provided to work on them in class. This option allows students to work together and ask for live instructor feedback. Paper copies can be turned in immediately, or the next class.

2. *Asynchronous option.* The worksheets will be released automatically online during classes when the paper copies are distributed in-person. They can be found under the "Worksheets" section of the course HuskyCT page. Students can complete them and either upload solutions in HuskyCT or hand in a paper copy later, by the due date.

Each worksheet problem is graded as pass (1 point) or fail (0 points). Zero scores indicate either a wrong (or missing) answer with insufficient work shown to assess understanding, or the work shown indicates an insufficient understanding of the concepts. Solutions will be provided in HuskyCT once the paper copies are returned to students.

Course policy regarding deadlines: The due dates for worksheets and homework are published in this syllabus (see schedules below). If there are mitigating circumstances that require an extension, the course instructor must be contacted (see e-mail above) and an approval granted on or before the due date.

Electronic resources: The use of calculators or other electronic resources will not be permitted on exams. These may be used on homework and worksheets.

Policy for course grade: The course grade is 20% homework, 10% worksheets, 20% exam 1, 20% exam 2 and 30% for the final exam. Classical grading scale: 0 – 59% = F, 60 – 62% = D-, 63 – 66% = D, 67 – 69% = D+, 70 – 72% = C-, 73 – 76% = C, 77 – 79% = C+, 80 – 82% = B-, 83 – 86% = B, 87 – 89% = B+, 90 – 92% = A-, 93% and higher = A.

Final exam: The final exam date, time and place will be published online once the Registrar's office completes the scheduling process. **The exam is cumulative.**

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. In the case of the final exam, refer to the University policy, shown below under "UConn policies".

UConn policies:

- **Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships** - The University is committed to maintaining an environment free of discrimination or discriminatory harassment directed toward any person or group within its community – students, employees, or visitors. Academic and professional excellence can flourish only when each member of our community is assured an atmosphere of mutual respect. All members of the University community are responsible for the maintenance of an academic and work environment in which people are free to learn and work without fear of discrimination or discriminatory harassment. In addition, inappropriate Romantic relationships can undermine the University's mission when those in positions of authority abuse or appear to abuse their authority. To that end, and in accordance with federal and state law, the University prohibits discrimination and discriminatory harassment, as well as inappropriate Romantic relationships, and such behavior will be met with appropriate disciplinary action, up to and including dismissal from the University. (More information is available at `http://policy.uconn.edu/?p=2884`).

- **Sexual Assault Reporting Policy** - To protect the campus community, all non-confidential University employees (including faculty) are required to report assaults they witness or are told about to the Office of Diversity and Equity under the Sexual Assault Response Policy. The University takes all reports with the utmost seriousness. Please be aware that while the information you provide will remain private, it will not be confidential and will be shared with University officials who can help. (More information is available at `https://titleix.uconn.edu/`.

- **Attendance** - Your instructor expects you to attend class regularly. Besides being nearly essential for developing your understanding of the material, your regular attendance in class is good for the morale of the class and is indicative of your interest in the subject and your engagement in the course. You are responsible for the material discussed in class and in the assigned reading in the text.

- **Student Conduct Code** - Students are expected to conduct themselves in accordance with UConn's Student Conduct Code: `https://community.uconn.edu/the-student-code`.

- **Academic Integrity Statement** - This course expects all students to act in accordance with the Guidelines for Academic Integrity at the University of Connecticut. Because questions of intellectual property are important to the field of this course, we will discuss academic honesty as a topic and not just a policy. If you have questions about academic integrity or intellectual property, you should consult with your instructor. Additionally, consult UConn's guidelines for academic integrity: `https://community.uconn.edu/the-student-code-appendix-a`.

- **Students with Disabilities** - The Center for Students with Disabilities (CSD) at UConn provides accommodations and services for qualified students with disabilities. If you have a documented disability for which you wish to request academic accommodations and have not contacted the CSD, please do so as soon as possible. The CSD is located in Wilbur Cross, Room 204 and can be reached at (860) 486-2020 or at csd@uconn.edu. Detailed information regarding the accommodations process is also available on their website at `csd.uconn.edu`.

- **Final Exam Policy** - In accordance with UConn policy, students are required to be available for their final exam and/or complete any assessment during the time stated. If you have a conflict with this time you must obtain official permission to schedule a make-up exam with the Dean of Students; `dos.uconn.edu/reschedule-finals`. If permission is granted, OSSA will notify the instructor. Please note that vacations, previously purchased tickets or reservations, graduations, social events, misreading the assessment schedule, and oversleeping are not viable reasons for rescheduling a final.

Dates	Book Sections	Topics
1/21, 1/23	1.1, 1.2	Systems of linear equations, row reduction, echelon forms
1/26 - 1/30	1.3, 1.4, 1.5	Vector equations, matrix form, solution sets
2/2 - 2/6	1.7, 1.8, 1.9	Linear independence, transformations
2/9 - 2/13	2.1, 2.2, 2.3	Matrix operations, inverse matrices
2/16, 2/18	3.1, 3.2	Determinants and their properties
2/20, 2/23	from 1.1 to 2.3	Exam 1 review/catch-up
2/25	—	**Exam 1**
2/27	4.1	Vector spaces
3/2 - 3/6	4.2, 4.3	Null and column spaces, linear independence, bases
3/9 - 3/13	4.4, 4.5, 4.6	Coordinate systems, dimension, rank
3/16 - 3/20	—	**Spring break - no class**
3/23 - 3/27	5.1, 5.2, 5.3	Eigenvectors, eigenvalues, characteristic equation, diagonalization
3/30 - 4/3	5.4, 6.1	Representations of linear transformations, inner products, orthogonality
4/6, 4/8	from 3.1 to 5.3	Exam 2 review/catch-up
4/10	—	**Exam 2**
4/13 - 4/17	6.2, 6.3	Orthogonal sets, orthogonal projections
4/20 - 4/24	6.4, 6.5	Gram-Schmidt, QR factorization, least-squares problems
4/27	7.1, 7.4	Light coverage on symmetric matrices and SVD
4/29 , 5/1	from 1.1 to 6.5	Final review
TBD	—	**Final Exam**

HOMEWORK:

Book Section	Problems	Due date
1.1	1, 3, 10, 13, 22, 23, 25	1/30
1.2	2, 3, 7, 8, 19, 21, 22	1/30
1.3	1, 6, 9, 12, 14, 21, 26	2/6
1.4	6, 7, 9, 12, 22, 24, 26, 41	2/6
1.5	2, 6, 11, 23	2/6
1.7	1, 6, 8, 9, 15, 21, 22, 33, 34	2/13
1.8	2, 4, 7, 11, 16, 19, 20	2/13
1.9	1, 2, 3, 5, 8, 19, 27	2/13
2.1	1, 4, 7, 9, 12, 16, 21, 22, 27	2/20
2.2	3, 4, 8, 10, 25, 31, 32	2/20
2.3	2, 4, 8, 12, 15	2/20
3.1	4, 11, 15, 17, 37	2/27
3.2	4, 7, 8, 21, 22	2/27
4.1	2, 3, 8, 10, 12, 14, 16, 18	3/6
4.2	1, 3, 5, 15, 18, 22, 24, 26	3/13
4.3	2, 4, 6, 8, 10, 14, 19, 22	3/13
4.4	3, 7, 8, 11, 13	3/27
4.5	4, 6, 8, 14, 18, 21, 23	3/27
4.6	1, 4, 6, 8, 12, 15, 16, 18	3/27
5.1	2, 4, 8, 9, 13, 14, 18	4/3
5.2	3, 4, 14, 16	4/3
5.3	2, 4, 6, 8, 11, 12	4/3
5.4	6, 9, 12, 13	4/17
6.1	2, 4, 7, 9, 16, 18, 22	4/17
6.2	2, 6, 10, 14	4/24
6.3	3, 4, 11, 12, 13	4/24
6.4	5, 6, 9, 10	5/1
6.5	3, 17, 19, 21	5/1

WORKSHEETS:

Date Assigned	Book Section	Due date
1/30	1.1, 1.2	2/2
2/6	1.3 – 1.5	2/9
2/13	1.7 – 1.9	2/16
2/20	2.1 – 2.3	2/23
3/6	3.1, 3.2, 4.1	3/9
3/13	4.2, 4.3	3/23
3/27	4.4 – 4.6	3/30
4/3	5.1 – 5.3	4/6
4/17	5.4 , 6.1	4/20
4/24	6.2 , 6.3	4/27
5/1	6.4 , 6.5	**5/4***

***NOTE: last worksheet can only be submitted online after 5/1 class.**