Instructor: D. Xu (dashunxu@.siu.edu) **MATHEMATICS 221 Spr 2025**
OFFICE: Neckers A 273 **PHONE**:
OFFICE HOURS: MTWF 10:55-11:55am, W 1-2:55pm, or appointment **CALCULATOR:** None

Class meeting: 10-10:50am on MWF, Neckers 218

Tutoring sessions: M—Th. 5-9pm Lib 680

Book: *Elementary Linear Algebra*, by Howard Anton 11th ed.

Coverage: Chap1-6 (may not be whole chapters)

Exams: Two midterm exams and one final exam. Depending on our lecture pace, I will announce the midterm exam dates in class. All announcement will be posted on my course webpage (please google "Dashun xu math221").

Grading Information

Grading Scale

540↑ A	480↑ B	420↑ C	360↑ D	359↓ F

Grades

Midterm exams	200
Homework	200
Final	170
Participation	30

Participation: Throughout the course of the semester there will be an undisclosed number of participation assignments given in class on undisclosed dates. The purpose of these assignments is not to assess your understanding of any concepts. Rather, the purpose of the participation assignments is to allow you to work through problems in class (so that we can identify which concepts need more attention and make the appropriate changes together). In most cases, if you show up to class on time and stay for the duration of the class period on the day a participation assignment is given, you will receive full credit (3 points) for the assignment.

Attendance Policy: It is imperative that you attend every lecture and stay for the lectures full duration. Because the material is difficult to learn on your own, very few students can succeed in this course without attending lecture. Please notify me in advance if you are going to miss part or all of a class so that we can make a plan to keep you on track.

Important dates:

Semester Classes Begin	January 13
Last Day to Drop with Refund	January 24
Last Day to Drop with no refund	March 30
Spring Break	March 30--March 16
Final Examinations	Mon, May 6-Fri, May 10

Lecture notes: Available in D2L

Homework: All assignments will be collected every Friday in class and only a few questions in each assignment will be graded. Late homework will not be accepted. The followings are problems assigned last time. I will **update** these problems after each class meeting. Please make sure **refresh** my course webpage.

Date	Homework	
Week 1	Sect 1.1: 5, 7(c), , 8(c) Sect 1.2: 3(a, c,d), 5, 11, 15, 25, 27	
Week 2	Sect 1.3: 2(b, c), 3(e. f), 5(a, b, d, e), 23	
Week 3	Sect 1.3: 2(d, e), 3(j), 5(d, e, g, h, j), 12, 13(a), 15, 29(a,b) 1.4: 9, 12, 13, 15, 17, 20c, (using inverse 25, 27), TF(a-k)	
Week 4	1.5: 2, 3, 5(c), 6(b), 7(ac), 8(ac), 11, 13, 15, 16, 19, 20, TF(a-g) 1.6: 1, 3, 12(i), 1.6: 13, 15, 19, TF(a-g)	
Week 5	1.7: 3, 4, 15, 19—21, 35(b), TF(a-m) 2.1: 1, 21, 22, 23, 27, 30,	
Week 6	2.2: 6, 7, 11, 9, 11, 15, 17, 18, 19, 21, optional (23, 25,27, 29, 30) 2.3: 7, 15, 17, 19, TF (a-l)	
Week 7	2.3: 25, 33; 3.1: 1(a), 3, 11(a,c), 19 3.2: 1(a), 5(a), 9(a) Review Problems: 1.2: 11, 25, 27 1.4: TF(a—g) 1.6: TF(a—f) 1.7: TF(j—m) 2.1: 21, 22, 2.2: 15--22 2.3: 19, 21,	
Week 8	3.2: 19,	

	3.3: 1cd, 3, 7, 10, 13b, 19	
Week 9	4.1: 8, 9, TF a-e.	
Week 10	4.2: 7, 11, 12(a,c), 4.3: 1(a,b), 2, 3	
Week 11	4.4: 2, 11(a), 13(a), 19(a, b), TF(a-d) 4.5: 1, 3, 5, 15, 17, 4.6: 1(abc), 3(ab)	
Week 12	4.7: 3a, 7b, 9, 15, 17 4.8: 1, 6	
Week 13	HW: 4.7; 11, 12 4.8: 1b, 3, 5, 6 5.1: 7, 12, 13,	Review: 4.2: 11, 12(ab) 4.3:2b, 3b 4.4: 13a, 19ab, 4.7: 9, 15, 16, 17
Week 14	HW due on Fri. 5.2: 3, 6, 8, 9, diagonalize 13, 17	
	Review for the final: Week 7 and 13 homework and two review sets for midterm exams, together with 1.5: 11, 13, 2.3: 33, 34 4.2: 2(a, b, d, e) 5.2: 9, 11 Thm in 4.8 Review Lecture notes for chap6. Practice: 6.1: 29, 30, TF(a-f) 6.2: 1, 15, 16, 27	

Suggestion: I want you to do well in this course. If you are having trouble understanding the material or have any questions, then please come and see me. Also please take full advantage of our tutoring sessions. It is really nice to sit together and discuss homework problems in the tutoring room.

Find one or two other students from the class with whom you can regularly do homework and prepare for exams. Your classmates are perhaps the least used and arguably your best resource. An efficient and effective study group will streamline homework and study time and greatly improve your written and spoken communication. The best time to use your classmates as study/homework partners is after you have made an **honest effort on your own** to solve the problems using your own wits, knowledge, and experience. When you encounter an unsolvable problem, don't give up too soon on it. Being stumped is an opportunity for mathematical growth and insight, even if you never solve the problem on your own. If you seek help prematurely, you will never know if you could have solved a tough problem without outside assistance.