

Instructor: D. Xu (dashunxu@siu.edu)

MATHEMATICS 221 Spr 2024

OFFICE: Neckers A 273

PHONE: 453-6598

OFFICE HOURS: MWF 8:50-9:55am, 10:50-11:50am, 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.

Grading Scale

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| 90 ↑ A | 80 ↑ B | 70 ↑ C | 60 ↑ D | 59 ↓ F |
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Grades

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| Midterm exams | 35 |
| Homework | 25 |
| Final | 32 |
| Attendance (deduct 1 point per missed class meeting) | 8 |

Grading Information

Important dates:

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| Semester Classes Begin | Tuesday, January 16 |
| Last Day to Register | Sunday, January 21 |
| Last Day to drop w/ Reg. Office | Friday, January 26 |
| Last Day to Drop with Refund | Sunday, January 28 |
| Spring Break | Sat, March 9-Sun, March 17 |
| Last Day to Drop w/o Refund | Friday, March 29 |
| Total Solar Eclipse (Classes Cancelled) | Monday, April 8 |
| Final Examinations | Mon, May 6-Fri, May 10 |
| Commencement | Saturday, May 11 |

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.

| 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), |

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| | 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 | |

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| 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: Take full advantage of our tutoring sessions.

Find at least 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.