

Texas A&M University, Department of Mathematics, Spring 2016

MATH 323 (200) — Honors Linear Algebra *

TR 9:35am-10:50am, Blocker Building, Room 164

Instructor: Simon Foucart, 608L Blocker Building, foucart@tamu.edu

Office hours: TWR 11:00am-11:45am and by appointment

Course web page: accessed via eCampus at <http://ecampus.tamu.edu/>

Textbook: *Elementary Linear Algebra (4th edition)*, by Andrilli and Hecker

Course Objectives: This thorough introduction to linear algebra focuses on concepts, proofs, and problem-solving skills to achieve a mathematical mastery of the subject. The topics covered include linear equations, matrices, real vector spaces, linear transformations, change of bases, determinants, eigenvalues and eigenvectors, diagonalization, and inner products.

Exams: There are 2 in-class tests (midterms) scheduled for **Feb 25** (Thursday) and **Apr 7** (Thursday). The final cumulative examination (final) is scheduled for **May 5** (Thursday).

Homework: Homework is an integral part of the course. There will be problems assigned weekly, some of which will be graded. These problems will be collected at the beginning of class on the due date. Late homework will not be accepted. Homework questions are chosen to illustrate the concepts and techniques expected to be mastered — as such, notions introduced in homework can appear in exams. You are encouraged to come and see me during my office hours to obtain some help on particular questions, provided you made a genuine attempt to solve them.

Extra Help: In addition to office hours, you can receive free assistance via the department of mathematics, see <http://www.math.tamu.edu/courses/helpsessions.html>.

Grading: Grades are based on the work shown, not on what was intended or implied. Excessively sloppy, poorly justified and disorganized work cannot be given full credit, even if the correct answer appears. The final grade is assigned according to the following scheme:

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|-------------|------------|
| • Homework | 70 points |
| • Midterm 1 | 100 points |
| • Midterm 2 | 100 points |
| • Final | 130 points |

The point scale used to determine the final letter grade is

F: 0–199, D: 200–239, C: 240–279, B: 280–319, A: 320–400.

Make-ups will only be given in case of university excused absences or in exceptional circumstances (illness, injury, etc.,) which should be documented. My prior approval is necessary.

*this syllabus is a general plan for the course; deviations announced in class may be necessary

Tentative schedule:

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|-------------------------|---------------------|----------------------------------|
| Week 1 (Jan 19 and 21) | Sect. 1.1, 1.2, 1.3 | Tuesday 19: first lecture |
| Week 2 (Jan 26 and 28) | Sect. 1.4, 1.5, 2.1 | Monday 25: last day for add/drop |
| Week 3 (Feb 2 and 4) | Sect. 2.2, 2.3 | |
| Week 4 (Feb 9 and 11) | Sect. 2.4, 3.1, 3.2 | |
| Week 5 (Feb 16 and 18) | Sect. 3.3, 3.4 | |
| Week 6 (Feb 23 and 25) | Sect. 4.1, 4.2 | Thursday 25: Midterm 1 |
| Week 7 (Mar 1 and 3) | Sect. 4.3, 4.4 | |
| Week 8 (Mar 8 and 10) | Sect. 4.5, 4.6 | |
| Spring Break | | |
| Week 9 (Mar 22 and 24) | Sect. 4.7, 5.1, 5.2 | |
| Week 10 (Mar 29 and 31) | Sect. 5.3, 5.4 | |
| Week 11 (Apr 5 and 7) | Sect. 5.5 | Thursday 7: Midterm 2 |
| Week 12 (Apr 12 and 14) | Sect. 5.6, 6.1 | |
| Week 13 (Apr 19 and 21) | Sect. 6.2, 6.3 | Tuesday 19: last day for Q-drop |
| Week 14 (Apr 26 and 28) | Additional topics | Thursday 28: last lecture |
| Week 15 | | May 5, 12:30pm-2:30pm: Final |

Attendance Policy: Attendance is not compulsory, but regular attendance is expected — it is in fact essential if you want to do well in the course. Classes to be missed due to religious holidays must be communicated to me during the first week. You are required to arrive on time and stay the length of the class. If you do not attend a class, you are responsible for any announcement made, any material covered, and any additional topic introduced during this class. Office hours cannot be used for this purpose.

Electronic Etiquette: Laptops and tablets are not allowed (unless it is demonstrated that they are used for note-taking only). Cell phones must absolutely be put on silent mode, left closed, and put away. If you have a family emergency and need to take a call during class, I shall be notified in advance so that a special arrangement can be made.

Academic Honesty: *“An Aggie does not lie, cheat, or steal or tolerate those who do.”*
See <http://aggiehonor.tamu.edu> for more information.

Americans with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.