

Peter Sin

Department of Mathematics

College of Liberal Arts and Sciences

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MAS4105/1001/17884 Linear Algebra 1 Spring 2025

Instructor

Prof. Peter Sin

Time and Location

MTWTF Per. 6, Burlington 2354

Office Hours:

Dr Sin: TPer. 7, WPer. 5, Little 432, and by appointment.

Description and Goals

The course provides a rigorous and thorough introduction to linear algebra, a subject which is basic to nearly all branches of pure and applied mathematics, with many applications in science, engineering and economics. The student will learn to read and write proofs of theorems, and develop computational skills. This course is designed to serve majors in mathematics and those engineering and science students interested in a conceptual understanding of the subject.

Textbook

Linear Algebra, by Insel, Friedberg and Spence. You can use the 4th or 5th ed. See the problem numbering differences noted in the homework section.

Software

GNU octave is free, open source Matlab-like numerical linear algebra software that is easy to install and use. Matlab is somewhat bigger, fancier, and not free. SageMath is a free open-source mathematics software system, using a python-based language. It is easy to learn, with lots of online documentation. You are not required to use octave, Matlab, or SageMath but they are useful tools for learning linear algebra.

Course Calendar (including all exam dates)

[MAS 4105 course calendar Spring 2025](#)

Homework

The list of homework problems appears below. You should try to solve **all** of the assigned problems. In general, these problems are for practice and do not have to be turned in. You may find it helpful to discuss ideas to solve homework problems with your classmates, and I also encourage you to show your work to me for guidance on how to write proofs well.

The numbers are for the 4th ed. The numbers for the 5th ed. of the text are mostly the same, and changes are noted in the form (5:6, 7:8) to indicate that Q5 and Q7 in the 4th ed. became Q6 and Q8 in the 5th ed.

Chapter 1:

Sect. 1.2: 1, 7, 11, 12, 13, 18.

The numbers given are for 4th ed

Sect. 1.3: 1, 5, 8, 11, 12, 13, 15, 17, 22.

Sect. 1.4: 1, 2, 3, 5, 6, 12.

Sect. 1.5: 1, 3, 4, 5, 7, 10, 16, 18, 20.

Attendance and Late Policy

Attendance is mandatory, except for absences allowed by UF policies. The UF policy on attendance is here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Disabilities statement

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <http://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Health and Wellness

U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352-392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu>, 352-392-1575.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 352-392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies), <http://www.police.ufl.edu/>

Honor Code

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of this class.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.