

MAT-211-02,04 Fall 2020

TITLE	Introduction to Linear Algebra
DESCRIPTION	Introduction to the theory of linear algebra with some applications; vectors, vector spaces, bases and dimension, applications to geometry, linear transformations and rank, eigenvalues and eigenvectors, determinants and inner products. May not be taken for credit in addition to AMS 210.
TEXTBOOK	Linear Algebra with Applications, 5th Edition ISBN-13: 9780321796974 ISBN-10: 0321796977 Author: Otto Bretscher
INSTRUCTOR	Chuanhao Wei Email: chuanhao.wei@stonybrook.edu Office Hour (Online): Tu 2:00PM-4:00PM or by appointment Math Learning Center Hours (Online): Th 3:30PM-4:30PM
GRADER	Yunpeng Niu Email: yunpeng.niu@stonybrook.edu Math Learning Center Hours (Online): Fr 8:00AM-9:00AM
LECTURE TIMES	Sec 02: TuTh 11:30AM-12:50PM Sec 04: TuTh 4:45PM-6:05PM
WEBPAGE	All course information will be updated on the Blackboard.
HOMEWORK	Every Thursday, you will be assigned a weekly written homework, which will consist of around 10 exercises picked from the text book. You have two choices to upload your homework: 1, Directly write your homework on your electronic device, save it as a .pdf document and upload it onto the blackboard. (Preferred) 2, Write your homework on paper, then scan it and transform it to a .pdf document, (which you should be able to find an APP on your phone to do these two steps,) and uploaded it onto the blackboard. The homework is due next Thursday, and I will use part of Tuesday's online lecture to provide some hints about the homework of the previous week. The grader will only grade part of your homework each week.
FINAL EXAM	Time: Wednesday, Dec. 9, 2:15pm-5:00pm The format of the exam will be announced one month prior.

GRADES	<p>The total grade will be mainly determined, by your final exam. Homework grades will also be considered, for minor adjustment. The following is the guideline, for the letter grades, in terms of the final exam score:</p> <p> ≥ 90 : A, A^- ≥ 80 : B^-, B, B^+ ≥ 70 : C^-, C, C^+ ≥ 60 : D, D^+ < 60 : F </p> <p>For example: If you get 70/100 in the final exam, you will get a C^- as a minimum. You will at best get a B^- according to your total homework score. If you get 95/100 in the final exam, you will get an A, regardless of your homework.</p> <p>Policy for final grades: http://www.math.stonybrook.edu/mde/grades.html</p>
TENTATIVE SCHEDULE	<p>Week of Aug 24: 1.1, 1.2; Week of Aug 31: 1.3, 2.1; Week of Sep 7: 2.2, 2.3; Week of Sep 14: 2.4, 3.1; Week of Sep 21: 3.2, 3.3; Week of Sep 28: 3.4, 4.1; Week of Oct 5: 4.2, 4.3; Week of Oct 12: 5.1, 5.2; Week of Oct 19: 5.3 6.1; Week of Oct 26: 6.2, 7.1; Week of Nov 2: 7.2, 7.3; Week of Nov 9: 8.1, 8.2; Week of Nov 16: Review; Week of Nov 23: Thanksgiving break; Week of Nov 30: Review.</p>
MAJOR TOPICS	<p>Systems of Linear Equations Gauss Elimination and Row Echelon Form Vectors and Matrices Linear Transformations Matrix Multiplication, Inverse Matrices Image and Kernel of a Linear Transformation Subspaces of \mathbb{R}^n Linear Independence, Basis, and Dimension Coordinates Inner Product Spaces Projections Determinants Eigenvalues and Eigenvectors Diagonalization</p>
LEARNING OUTCOMES	<p>Students must use the skills expected from their Versatility courses to study and practice them in greater depth, with further study applied to the area in which they are certified.</p>
AMERICANS WITH DISABILITIES ACT.	<p>If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Student Accessibility Support Center, ECC (Educational Communications Center) Building, Room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.</p>

https://www.stonybrook.edu/commcms/studentaffairs/sasc/current_students/accommodation.php

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Student Accessibility Support Center. For procedures and information go to the following website:

<https://ehs.stonybrook.edu//programs/fire-safety/emergency-evacuation/evacuation-guide-people-physical-disabilities>

ACADEMIC
INTEGRITY

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at:

https://www.stonybrook.edu/commcms/academic_integrity/

CRITICAL
INCIDENT
MANAGEMENT

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.