

Course Instructor.

Name	E-mail	Office Hours
Jonguk Yang (Jon)	jonguk.yang@stonybrook.edu	Math Tower 4-115 Mon, Wed 5:30-6:30

Note: Any email about the course sent to the instructor must contain the one word “MAT211” somewhere in the subject line (otherwise, it is very likely that I will miss your email).

Textbook. *Linear Algebra: A Modern Introduction (4th Edition)*, by David Poole. An electronic version can be accessed through WebAssign. The students may purchase a hardcopy if they prefer, but it is not necessary.

Course Website. All the information about the course will be posted on Blackboard (<https://blackboard.stonybrook.edu/>).

WebAssign Purchasing WebAssign is mandatory, as WebAssign homework will be assigned weekly in this course. WebAssign can be accessed through the course website.

Marking Scheme. Your final grade will be determined as follows:

Homework	20%
Midterm 1	20%
Midterm 2	20%
Exam	40%
Course Grade	100%

Midterms. There will be two midterms in this course. They will be held in-class.

	Date	Time	Location
Midterm 1	Wednesday, October 2nd	4:00 PM to 5:20 PM	Physics P113
Midterm 2	Wednesday, November 6th	4:00 PM to 5:20 PM	Physics P113

To request special consideration for missing the midterm, bring supporting documentation to the instructor in-person at least **one week before the test date**. In case of illness, bring a doctor’s note to the instructor in-person **within one week after the test date**. For students who have missed one test because of a legitimate reason, the weight of the missed test will be shifted to make

the other test worth 25%, and the exam worth 55%. For students who have missed both tests because of legitimate reasons, the full weight of the tests will be shifted to the exam to make it worth 80%.

Exam. The exam will take place in **Physics P113**, on **Wednesday, December 11th, 8:30 PM to 11:00 PM**.

Homework. Homeworks will be assigned through WebAssign every Friday (except before the midterm weeks). They will be due the following **Sunday at 11:59PM**. Late submissions will NOT be accepted.

Disability Support Services (DSS) Statement. If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, 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. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities>.

Academic Integrity Statement. 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 are 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 <http://www.stonybrook.edu/commcms/academicintegrity/index.html>.

Tentative Course Schedule. Note: May change as the course progresses.

Week	Topics and sections covered	Notes
08/26	Intro to systems of linear equations, row reduction Poole: 2.1, 2.2	
09/02	Gaussian elimination Poole: 2.2	09/02 Labor day
09/09	Intro to matrices, matrix operations, matrix algebra Poole: 3.1, 3.2	Homework 1 due
09/16	Matrix inversion, intro to vectors, linear combination Poole: 3.3, 1.1, 2.3	Homework 2 due
09/23	Span, linear independence, rank, subspaces, basis, dimension Poole: 2.3, 3.5	Homework 3 due
09/30	Review	10/02 Midterm 1
10/07	Intro to affine sets, intro to linear transformations and examples Poole: 3.6	Homework 4 due
10/14	Image space, null space Poole: 3.5	10/14 - 10/15 Fall break Homework 5 due
10/21	Rank-nullity theorem, geometric definition of the determinant Poole: 3.5, Exploration: Geometric Applications of Determinants	Homework 6 due
10/29	Algebraic definition of the determinant, computing the determinant Poole: 4.2	Homework 7 due
11/04	Review	11/06 Midterm 2
11/11	Eigenvalues, eigenvectors, polynomials, characteristic polynomials Poole: 4.1, 4.3	Homework 8 due
11/18	Diagonalization, dot product, SLE for an affine set Poole: 4.4, 1.2, 1.3	Homework 9 due
11/25	Orthogonality, orthogonal projections Poole: 5.1, 5.2	Homework 10 due
12/02	Gram-Schmidt, orthogonal diagonalization Poole: 5.3, 5.4	Homework 11 due
12/09		12/11 Exam