

MATH 304 Linear Algebra

Course Syllabus

Website: <http://www2.math.binghamton.edu/p/math304/start>

Textbook

Linear Algebra, A Text for Math 304 by M. Brin and G. Marchesi, 13th edition, 2014. Published by the Department of Mathematical Sciences, available through the University Bookstore.

Beginning Linear Algebra by S. Lipchutz, Schaum's Outlines, McGraw-Hill. *Workbook-Supplemental Text*

Course Objectives

We will cover the first six chapters of the textbook. We aim to have a solid and sound understanding of real vector spaces. We will study basic properties of such vector spaces, linear maps between them and operators, systems of linear equations, matrices, eigenvalues and eigenspaces of operators, and inner-products on vector spaces.

Prerequisites

Calculus I (Math 221 or equivalent).

Graded Assessments

MATH 304 is a coordinated course where all sections take common midterm and final exams. There will be two common midterm exams of 90 minutes and a common final exam of 120 minutes. The two midterm exams are scheduled for

- **Thursday, October 2, 7:30-9:00 p.m.**
- **Thursday, November 6, 7:30-9:00 p.m.**

The common final exam is scheduled for **Thursday, December 18 at 5:40 p.m. in LH 008.**

Final Grade

Midterm 1	Midterm 2	Final Exam	Section Grade
20%	20%	30%	30%

The exact cut-off for letter grades will not be determined until the final exam has been graded. The cut-off for an A will be at or below 90% and the cut-off for a D will be at or above 50%. Students taking the course *pass/fail* must have a final score qualifying for a *C-* to earn a *pass*.

Course Schedule

Week 1: 9/1 - 9/5	Sections 1.1 - 1.3	No Class Monday
Week 2: 9/8 - 9/12	Sections 1.4 - 2.1	
Week 3: 9/15 - 9/19	Sections 2.2 - 2.5	
Week 4: 9/22 - 9/24	Sections 2.6 - 2.8	No Class Thursday/Friday, Halfday Wednesday
Week 5: 9/29 - 10/3	Section 2.8 - 3.1	Midterm 1 Thursday , Halfday Friday

Week 6: 10/6 - 10/10	Section 3.2 - 3.3	
Week 7: 10/13 - 10/17	Section 3.4 - 3.6	
Week 8: 10/20 - 10/24	Sections 3.7 - 4.2	
Week 9: 10/27 - 10/31	Sections 4.2 - 4.6	
Week 10: 11/3 - 11/7	Sections 4.7, 4.8	Midterm 2 Thursday

Week 11: 11/10 - 11/14	Sections 4.8, 5.1	
Week 12: 11/17 - 11/31	Sections 5.1 - 5.3	
Week 13: 11/24 - 11/26	Sections 5.4	No Class Thursday/Friday, Halfday Wednesday
Week 14: 12/1 - 12/5	Sections 5.4 - 5.5	
Week 15: 12/8 - 12/12	Sections 6.1 - 6.2.4	

Help

Faculty hold office hours which are open to all students in every section of Math 304. For more information on faculty office hours, visit the course homepage.

Exam Make-Up Policy

There will be **NO** make up exams except for documented conflicts with the exam time or extraordinary circumstances beyond your control.

- **Exam Conflicts:** If you have a conflict with the scheduled exam time then you can request an alternative time or a make-up. You **must** make your request by the Friday before a midterm or final exam. Acceptable conflicts for a midterm include other regularly scheduled classes and scheduled work time. **Recreational activities do not count as a conflict.** The University defines a conflict for a final exam to be another exam at the same time, or a total of three or more exams scheduled within the same 24 hour period. Nothing else counts. The **only** way to request an alternate exam time or makeup is to fill out the Exam Conflict Form found on the course homepage. Do not ask your instructor for an alternate exam time or makeup; all decisions will be made based on the exam conflict form.
- **Student Disabilities:** We are committed to full and equitable access for all enrolled students. To request special accommodations based upon a disability you must register with Services for Students with Disabilities. Please bring an Academic Accommodation Memo to your instructor, then you will receive appropriate accommodations on all graded course quizzes and exams.
- **Illnesses and Emergencies:** In case of an illness or an emergency (medical or otherwise) that will affect your ability to take an exam, you must inform your instructor **before the exam**. If an unanticipated emergency arises immediately before an exam that affects your ability to take the exam, then you must either send an email to your instructor before the exam explaining your situation, or you must alert your instructor to the situation as soon as possible. You must present a record of medical treatment or police involvement in such an emergency; be sure that any documentation includes the date of the emergency.

Time Expectations

This course is a 4-credit course, which means that students are expected to do **at least** 12.5 hours of course-related work or activity each week during the semester. This includes scheduled class meeting times as well as time spent completing assigned readings, studying for tests and examinations, participating in lab sessions, preparing written assignments, and other course-related tasks. Please note that 12.5 hours is the **minimum** amount of time recommended by Binghamton University to succeed in a 4-credit course.

Workbook and Supplemental Textbook: Schaum's Outline

Schaum's Outline of Elementary Linear Algebra is to be used as a workbook. Chapters start with a summary of results, methods, rules, algorithms, and theorems followed by examples worked out in detail. You may work your way through additional examples presented in great detail to reinforce and clarify concepts presented in the lectures and the mandatory text. There are additional problems with answers at the end of each chapter. Be aware that the mandated text and Schaum's outline sometimes use different notations (In any case, it is a good idea to check the notations if you use different texts for a subject, whatever the subject is!).

Honor Code

No form of cheating will be tolerated on any work submitted for credit by students. You are expected to obey the Academic Honesty Code: