

Lecture	TR 11:25am-12:40pm, E1 025	Office Hours	MW walk-in TR by appointment
Instructor	Robert Ellis, Asst. Prof. of Appl. Math	E-mail	rellis "aht" math.iit.edu (with appropriate modification)
Office	E1 Rm 105c	Free help	See http://arc.iit.edu/
Phone	(312)567-5336	Course Homepage	http://math.iit.edu/~rellis/teaching/332F10

Text: *Elementary Linear Algebra*, Howard Anton, 9th edition, Wiley.

Description¹:

This course has two main goals: (1) For students to develop proficiency in concepts, computations, theory, and some applications of linear algebra, such as systems of linear equations, rank, inverses, determinants, vector spaces, inner product spaces, eigenvalues and eigenvectors, linear transformations, and matrix algebras; and (2) For students to gain mathematical maturity through the development of good habits in understanding, communicating, and writing proof-based mathematics.

Assignments:

There are three types of assignments:

1. Look-ahead reading for each class,
2. Suggested homework problems which may be tested/quizzed later, and
3. Weekly written homework sets on material from the previous week.

You must do the look-ahead reading to become familiar with (but not master) upcoming material, and are advised to do the suggested homework problems to keep prepared for quizzes.

Homework grading and due dates:

Homework is typically due on Tuesdays at 11:25am at the beginning of class or 11:00am in my mailbox (E1 210) unless otherwise announced on the course homepage. You will receive at least 6 days' notice of homework due dates and are responsible for checking the course homepage. Absolutely no late homework will be accepted except in case of emergency, or an official IIT activity for which you make arrangements with me in advance. In return, the lowest two homework grades will be dropped, but remember if you simply don't do a homework you will suffer on the exams.

Deductions to homework score will result from:

- illegible, scratched-through, poorly formatted or organized solutions;
- unstapled pages
- electronic submission without prior approval (for emergencies and coursework/job conflicts)
- frayed loose-leaf edges

Because communicating mathematics is important, **one sixth** of the homework score will be for carefully organized and presented written solutions, regardless of their correctness. This includes making computations easy to follow, and giving proofs intuitive, logical flow and readability.

Grade Breakdown:

Homework, 20%; Quizzes 10%; Two in-class exams; 20% each; Final exam, 30%. The final will take place Tuesday December 7, 10:30am-12:30pm in Perlstein 109. The second in-class exam will be cumulative to the extent necessary to provide context, but otherwise will focus on material since the first exam. The Final exam will be cumulative. Any assigned reading or

¹ This course contract was developed in collaboration with Hemanshu Kaul, IIT Applied Mathematics.

suggested problems are fair material for quizzes, which may or may not be announced in advance. Quiz questions from assigned reading which is "looking" ahead of where we are in class will be more superficial than quiz questions from suggested problems. The grading scale will be no more strict than A:88-100, B:78-87, C:68-77, D:58-67.

Class Attendance and Reading the Text.

You are expected to attend all classes except in the case of emergencies, illness, or IIT-sanctioned activities. I will not slow down to accommodate chronic absenteeism. You are also expected to keep up with the required reading as assigned on the [course homepage](#). You are expected to be on time to class so as not to be disruptive by coming in late.

Homework collaboration:

You may only consult the instructor and the current ARC tutors on homework questions. You may not consult students who previously took the course, previous homework set solutions, solution manuals, or other such sources. You are encouraged to collaborate on homework in groups of 2-3. But you must:

- Submit **exactly** one solution for each problem and submit the assignment **in order** (we expect to grade and give feedback on your solutions, not search for your solutions);
- All sign on the first page or cover page a statement saying that each group member fully participated in the homework set, meaning that each member has either solved the problem or discussed the solution with other members until understanding it ([see a sample cover sheet](#)); and
- Combine your group members' contributions in a generally neat and legible way – all group members are responsible for approving the content and legibility of all submissions.

Warning: Homeworks submitted with 4+ authors will receive 0 credit. Homeworks that violate the collaboration policy (by copying from or paraphrasing unauthorized sources) will result in penalties at the discretion of the instructor, typically ranging from zero credit on the homework, to zero credit on the homework portion of the course grade, to zero credit in the course, depending on the severity and frequency of the plagiarism.

Academic Integrity:

The Code of Conduct and applicable penalties in the [IIT Student Handbook apply](#) (especially pp.23-24).

Missed Work:

Assignments and exams cannot be made up except as approved by the instructor (e.g., due to official IIT activity or documented emergency). An exam missed for an excused reason must be made up promptly upon the student's return, the time frame being at the discretion of the instructor, with reasonable accommodation for the student's schedule.

Disability Assistance:

IIT and this instructor are committed to accommodating students with disabilities. Students desiring such consideration must immediately contact the Center for Disability Resources and Educational Development at 567-5744. (Their approval must be had for any exceptions regarding testing guidelines.