

## Algebra II

### Course Information

**Text:**

Friedberg, Insel and Spence, *Linear Algebra*, 4th edition, Prentice Hall.

**Topics:**

The main topics covered by this course are the following:

- I. Diagonalization, eigenvectors and eigenvalues.  
Chapter 5: section 5.1-5.2 and 5.4
- II. Inner product spaces and linear transformations on them.  
Chapter 6: sections 6.1–6.6
- III. Jordan canonical form.  
Chapter 7: sections 7.1–7.3
- IV. Quadratic forms and multilinear algebra, as time permits.  
Chapter 6: sections 6.8 and 6.11, and supplementary material.

**Lectures: Tuesday 10–11, WB 116 and Thursday 11–1, SF 1105.**

*Note the different classrooms.*

**Tutorials:** Tutorials will provide additional explanation and examples of material from the lectures. They will also provide solutions to homework problems and review before exams.

The tutorials will **begin the first full week of classes**.

There will be four tutorial sections:

**A (0101): Tuesday 11-12, CR 404**

**B (0201): Tuesday 2-3, MS 2173**

**C (0301): Wednesday 11-12, GB 221**

**D (0401): Thursday 1-2, GB 119.**

The TA's for this course are

**Debanjana Kundu, dkundu@math.utoronto.ca**

and

**Ivan Telpukhovskiy, ivantelp@math.utoronto.ca**

**Marking Scheme:** The course grade will be computed on the basis of 600 points:

Final Exam: 325 points

Midterm Exam: 225 points

Homework: 50 points

**Term Test:** The Midterm Test will take place on **Thursday, February 15th**. More details about the test will be provided as the time approaches.

**Homework:** Homework assignments will be posted on Blackboard on Tuesday afternoon after class and will be due, via Crowdmark, at the beginning of class (10am) the following Tuesday. **No late homework will be accepted.** A homework assignment not handed in will be counted as a 0.

**Policy on Missed Tests:** Students who miss the midterm test for reasons beyond their control may, no later than one week after the missed midterm test, submit to the instructor a request for special consideration explaining the reason for missing the test, and attaching appropriate, and required, documentation, such as the Verification of Illness or Injury form (<http://www.illnessverification.utoronto.ca/>).

**Academic Integrity:** The University of Toronto treats cases of academic misconduct very seriously. The Code of Behaviour on Academic Matters outlines the behaviours that constitute academic misconduct, the process for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document. All suspected cases of academic dishonesty will be investigated following the procedures outlined in the Code of Behaviour on Academic Matters. If you have any questions about what is or is not permitted in this course, please do not hesitate to contact me.

From the Code:

"The University has a responsibility to ensure that academic achievement is not obscured or undermined by cheating or misrepresentation [and] that the evaluative process meets the highest standards of fairness and honesty."

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Office Hours: Wednesday 3:30–4:30