

UNIVERSITY OF TORONTO  
FACULTY OF ARTS AND SCIENCES  
MAT247H1S ALGEBRA II  
SYLLABUS - WINTER 2019

**Lectures Location and Time:** Tuesdays 10-11 and Thursdays 11-13. Check the timetable for location.

**Tutorials:** Check the timetable for schedule and location. Tutorials start during the second week of classes.

**Instructor:** Payman Eskandari, office: HU1012, email: [payman@math.utoronto.ca](mailto:payman@math.utoronto.ca)

**Office Hours:** To be announced.

**Teaching Assistants:**

- Ismail Abouamal ([ismail.abouamal@mail.utoronto.ca](mailto:ismail.abouamal@mail.utoronto.ca))
- Ozgur Esentepe ([ozgur.esentepe@mail.utoronto.ca](mailto:ozgur.esentepe@mail.utoronto.ca))

**TA Office Hours:** To be announced.

**Course Webpage:** <http://www.math.utoronto.ca/payman/mat247/main.html>  
We will use Quercus for the purposes of announcements and recording grades.

**Course Description and Textbook:** This is a second course in linear algebra aimed at students in the Math Specialist program. We will cover the following topics:

- (1) Diagonalization
- (2) Jordan and rational canonical forms
- (3) Inner product spaces
- (4) Bilinear forms
- (5) Multilinear algebra (time-permitting)

**Textbook (required):** Linear Algebra by Friedberg, Insel, and Spence, 4-th edition

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**Assessments and Grading Scheme:** We will have assignments, one midterm, and a final exam. Two raw grades A and B will be calculated by assigning the following weights to the assessments:

	assignments	midterm	final exam
A	20%	30%	50%
B	0 %	37.5%	62.5%

Then

$$\text{the final course grade} = \begin{cases} A & \text{if } B \geq 45 \\ B & \text{if } B < 45. \end{cases}$$

Below we say a few more words about the assessments:

- **Assignments:** There will be 9 assignments which are to be submitted on Crowdmark. The tentative due dates are as follows: Fridays Jan 18, Jan 25, Feb 1, Feb 8, Feb 22, Mar 8, Mar 15, Mar 22, and Monday Apr 1. The assignment with the lowest grade will be dropped. Please note that the TAs might decide to grade only a selected number of questions on each assignment (due to time limitations). In addition to the assignments that are to be handed in for grading, most weeks you will be provided with a list of extra practice problems. You are expected to work on these as well. (They might be relevant for the test or exam.)  
Late assignments will not be accepted. If for any reason an assignment is missed, a grade of zero will be recorded. Note that the assignment with the lowest grade will be dropped anyway.
- **Midterm:** The date and time will be finalized during the first week of classes. The midterm is tentatively scheduled to take place on Friday March 1 during 6-8 pm.
- **Final Exam:** The final exam will be 3 hours long and during the exam period.

No aids will be permitted for the midterm or the final exam.

**Policy for conflicts:** Students who will not be able to write the midterm due to a conflict must send an email to the instructor during the week prior to the midterm with a request for special consideration. The email must include the appropriate supporting documentation. For instance, if the student is taking another course with a test conflicting with our midterm, they must attach their ACORN timetable and the syllabus of the conflicting course confirming that the two tests overlap. If the request for special consideration is approved, the student will have to write a make-up test, which will take place at a date and time decided and announced by the instructor (likely the make-up will be during the week after the regular test). A grade of zero will be recorded for students who (after missing the original sitting) also miss the make-up test. Requests for exceptions to this rule must come from official university channels, such as the office of the Registrar or Test and Exam Services.

**Policy for missed midterm due to an emergency:** Students who miss the midterm for reasons beyond their control must submit a request for special consideration to the instructor no later than 5 days after the midterm, explaining the reason for missing the test. The request must be accompanied with the appropriate supporting documentation, such as the Verification of Illness or Injury Form (<http://www.illnessverification.utoronto.ca/>) in the case of a medical emergency. The initial submission of the documents may be electronically, but the documents must be submitted in physical form as well. If the request for special consideration is approved, the student will have to write the make-up midterm, which will take place at a date and time decided and announced by the instructor. A grade of zero will be recorded for students who (after missing the original sitting) also miss the make-up test. Requests for exceptions to this rule must come from official university channels, such as the office of the Registrar or the Test and Exam Services.

**Policy for term work regrade:** Regrade requests for any piece of term work, if submitted later than a week after the date on which the grades for the assessment in question have become available on Quercus, may be denied.

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**Collaboration versus plagiarism:** You are encouraged to discuss the problems sets with each other, but each of you must write up your own solutions independently. If you find the solutions in books or on the internet, you must quote your source, and still write up the solution in your own words. You are expected to be familiar with the University's Code of Behaviour on Academic Matters, available at <http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf>. You are also expected to have read the document *How Not to Plagiarize* available at <http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>.

**Accessibility Services:** The University of Toronto is committed to accessibility. If you have any accessibility concerns about the course, or require any accessibility-related accommodation, please contact the Accessibility Services ([www.studentlife.utoronto.ca/as](http://www.studentlife.utoronto.ca/as)) as soon as possible.

**Email policy:** Due to the class size and the nature of the course, math questions will likely not be answered over email. Emails are mainly to be used for administrative purposes. Please use your @mail.utoronto.ca or @utoronto.ca email account to contact the teaching staff, and include MAT247 in the subject line. Due to the class size, if the answer to your email is included in the syllabus, the email will likely receive no response.

Last day to drop S section code courses without academic penalty is March 17.