

**MAT482H1F: Topics in Mathematics (Algorithms in Algebra and Number Theory)**  
**Fall 2021 Academic Year**  
**University of Toronto**

**I Instructor and Teaching Assistants**

**Course Instructor**

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Office Hours: Wednesday 11am-12noon, on Zoom

**II Course Overview**

**Course Description**

A course in mathematics on a topic outside the current undergraduate offerings. For information on the specific topic to be studied and possible additional prerequisites, go to <http://www.math.toronto.edu/cms/current-students-ug/>.

**Prerequisites**

6.0 APM/MAT credits at the 100, 200 and 300-level. Possible additional topic-specific prerequisites.

**Textbooks/ Course Readings**

There is no required text. Online references will be provided.

**How this course is organized:**

This course will consist of 2 weekly lectures. These lectures will be in person, but recordings (and possibly live streamings) of these lectures will be available online.

The course announcements will happen through quercus and the course website:

<https://www.math.toronto.edu/swastik/courses/AANT-F21/>

Please note that due to the ongoing COVID-19 pandemic, the course delivery method may change after term has started and this may alter the course organization. Students are expected to check the course site for updates as the contents of this syllabus may change.

**Technical Requirements**

In order to participate in this course, students will be required to have:

- Reliable internet access. It is recommended that students have a high speed broadband connection (LAN, Cable, or DSL) with a minimum download speed of 5 Mbps.

- A computer satisfying the minimum technical requirements (<https://www.vicprovoststudents.utoronto.ca/covid-19/tech-requirements-online-learning/>)

If you are facing financial hardship, you are encouraged to contact your college or divisional registrar (<https://future.utoronto.ca/current-students/registrars/>) to apply for an emergency bursary.

### III Evaluation/ Grading Scheme

#### Mark Breakdown

Assignments	25%
Term Test	20%
Final Project	30%
Final Assessment	25%

#### Assignments

There will be assignments posted every 1-2 weeks. The 2 lowest grades will be dropped (late submissions will receive a mark of zero).

#### Term Test

There will be one term test which will be available for 24 hours to allow a reasonable window for students in all time zones to write.

#### Final Project

There will be a final project, which will involve (1) reading a paper or chapter, (2) producing a 5-10 page latex write-up which gives an overview of the whole paper/chapter and giving a detailed exposition/investigation of some interesting mathematics in it, and (3) giving a 10 minute lecture on it. Topics for the final project will be available in the first few weeks of the semester. Students should discuss their plan for the write-up and talk with the instructor early on.

#### Final Assessment

The final assessment will be held during the final assessment period in December 2021 and will be scheduled by the registrar. Information about the format will be provided during the Winter semester.

### IV Course Policies

#### Policy on Missed Term Work

As flexibility for missed or late course assignments have been built into the marking scheme, late and missed assignments will not be accepted.

If you miss a term test or the final assessment, then you must inform your course Instructor within 72 hours of the test. No exceptions. If your request is approved, you may receive an accommodation in the form of an oral exam, written make-up test, or a re-weighting of your assessments.

Please note that Verification of Illness forms (also known as a "doctor's note") are temporarily not required. Students who are absent from class for any reason (e.g., COVID, cold, flu and other illness or injury,

family situation) and who require consideration for missed academic work should report their absence through the online absence declaration. The declaration is available on ACORN under the Profile and Settings menu.

### **Email Policy**

Should you have a question that is not answered on the course site (please check there first!) please note that all communications with the Course Instructor or TA's must be sent from your official utoronto email address, with the course number included in the subject line. If these instructions are not followed, your email may not be responded to.

PLEASE INCLUDE "MAT482" in the subject of your email.

### **Mathematics Department Policy on Wearing Masks in Class**

Masks are an inexpensive and effective measure that limits the spread of COVID and will facilitate the return to normal life as quickly as possible. Failure to wear a mask properly entails unnecessary risks to public health and may disrupt learning by creating unwelcome distractions. It is the policy of the Math Department that in-person instruction cannot take place unless all students are wearing a mask that covers both mouth and nose, with exceptions only for students who have received documented exemptions.

As with other accommodations, any student who has an official exemption from wearing a mask is expected inform the instructor BEFORE classes begin by providing documentation.

This policy is in line with the University's mask requirement: [https://www.provost.utoronto.ca/planning-policy/joint-provostial-and-human-resources-guideline-on-facemasks-at-the-university-of-toronto/#section\\_0](https://www.provost.utoronto.ca/planning-policy/joint-provostial-and-human-resources-guideline-on-facemasks-at-the-university-of-toronto/#section_0)

## **V Institutional Policies and Support**

### **Academic Integrity**

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters (<https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019>). If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, please reach out to your Course Instructor. Note that you are expected to seek out additional information on academic integrity from me or from other institutional resources (for example, the University of Toronto website on Academic Integrity <http://academicintegrity.utoronto.ca/>).

### **Copyright**

This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session.

Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor.

For questions about the recording and use of videos in which you appear, please contact your instructor.

### **Accessibility**

The University provides academic accommodations for students with disabilities in accordance with the terms of the Ontario Human Rights Code. This occurs through a collaborative process that acknowledges a collective obligation to develop an accessible learning environment that both meets the needs of students and preserves the essential academic requirements of the University's courses and programs.

Students with diverse learning styles and needs are welcome in this course. If you have a disability that may require accommodations, please feel free to approach your Course Instructor and/or the Accessibility Services office as soon as possible. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Link to Accessibility Services website: <https://studentlife.utoronto.ca/departments/accessibility-services/>

### **Equity, Diversity and Inclusion**

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

### **Important Academic Dates & Deadlines**

The academic dates include enrolment dates, drop deadlines, exam periods, petition deadlines and more.

<https://www.artsci.utoronto.ca/current/dates-deadlines/academic-dates>

### **Other Academic and Personal Supports**

- Writing Centre <https://writing.utoronto.ca/writing-centres/arts-and-science/>
- U of T Libraries <https://onesearch.library.utoronto.ca/>
- Feeling Distressed? <https://studentlife.utoronto.ca/task/support-when-you-feel-distressed/>
- Academic Success Centre <https://studentlife.utoronto.ca/departments/academic-success/>
- College/Faculty Registrars <https://future.utoronto.ca/current-students/registrars/>