

CSC 236 - Introduction to the Theory of Computation

Syllabus

Summer 2022

Contents

1	Course Description	2
2	Course Delivery	2
3	People	2
4	Communication	2
5	Office Hours	3
6	Course Materials	3
7	Platforms	3
8	Tech Requirements	3
9	Coursework and Grading Breakdown	3
10	HW Policies	4
10.1	L ^A T _E X	4
10.2	Group work	4
10.3	Late Submissions	4
10.4	Regrade requests	5
11	Special Considerations	5
12	Use of the Discussion Board	5
13	Participation	5
14	Academic Integrity	6

1 Course Description

The official course code for this course is CSC236-H1-Y-LEC5105-20215. The title is *Introduction to the Theory of Computation*.

The prerequisite for this class is CSC165. [Here](#) are the course notes for that class in case you want to brush up on something.

In this class, you'll extend your mathematical skills from CSC165 and use them to analyze algorithms and study the theoretical underpinnings of computation.

The first part of the course will develop some important tools that provide a framework for studying new mathematical objects and programs. In particular, we'll study functions, binary relations, graphs, and proof by induction.

In the second part of the course, we apply these tools to analyze the correctness and runtime of algorithms formally.

In the third and final part of the course, we define models for computation (finite state automata) and study their properties.

2 Course Delivery

All times are U of T time. That is, things start 10 minutes late.

Lectures are in person at SF1101 in the Sandford Fleming Building. They are on Wednesdays from 18:00-20:00. Lectures will be recorded for later viewing, but there is no option to attend virtually.

Tutorials are in person at BA2155, BA2145, BA2185, BA2175 in the Bahen Building across the street. They are held simultaneously and immediately after the lecture - Wednesdays from 20:00-21:00.

3 People

The instructor is Harry Sha. Email: shaharry@cs.toronto.edu, but please see the communication section for better ways to get in touch!

The TAs are Lawrence Li, Mohan Zhao, TaeHyung Kim, and Fateme Sadat Haghpanah.

4 Communication

The primary method of communication will be through announcements on Quercus and Ed, which will send email notifications - make sure you check your emails frequently, so you don't miss any important announcements!

The best way to get in touch with course staff is to post on Ed (they can be private). The second best way is to use the following email address: csc236-2022-05@cs.toronto.edu.

5 Office Hours

The instructor will hold weekly (starting week 2) office hours in person. See the course calendar (on the course website) for the most up-to-date times and locations.

Additional OHs are available by appointment.

6 Course Materials

There is no required reading for the course.

All lecture slides, lecture recordings, tutorial handouts, and tutorial solutions will be available on the course website:

<https://www.cs.toronto.edu/~shaharry/csc236/>

7 Platforms

We will use Ed for course discussion.

We will use Crowdmark for HW submission, grading, and feedback.

We will use Quercus minimally.

8 Tech Requirements

You will be required to have access to a computer to type and submit assignments.

9 Coursework and Grading Breakdown

There will be seven homeworks a midterm, and a final exam.

You can find the due dates for all the homeworks on the website.

Homeworks 1, 2, and count for 7.5% of your grade. Homeworks 3, 4, 5, and 6 count for 11.5% of your grade. Note that Homeworks 3, 4, 5, and 6 count for more of your grade because they are longer and will cover more material. Altogether, homework counts for 60% of the grade.

The midterm (date TBD, but likely during class time), and will count for 15% of your grade.

The final (date TBD) will count for 25% of your grade.

There is an additional 2% grade boost for the top 3 contributors on Ed.

10 HW Policies

10.1 L^AT_EX

All submissions must be typeset using L^AT_EX.

If something is preventing you from using L^AT_EX, please email csc236-2022-05@cs.toronto.edu, and we will consider making an exception.

We will provide a template for every homework, but you are welcome to use your own if you prefer.

10.2 Group work

You should complete homeworks in groups of 2. I.e., each group of 2 should submit ONE copy of their solutions. You can discuss ideas with other groups. However, you must do the write-up independently from other groups. If you do discuss the homework problems with other groups, make sure to cite them in your write-up - something like: "We discussed problem 2 with [person a] and [person b]."

You may work by yourself if you wish, but usually, it's more fun to work with someone else :)

10.3 Late Submissions

Homeworks are due at 11:59 pm on the day that they are due.

You will get five free late days. Each late day extends the deadline by 24 hours - no questions asked. You can use at most two late days on any one assignment. Late days will be applied automatically. Note that one late day is applied to each group member (i.e., a group of two doesn't have ten late days). Also, note that you can not use fractional late days, i.e., if you submit your homework at 12:01 am on the day after the due date (2 mins late), you use a full late day.

See the next section if you have used up all your late days and have an emergency that prevents you from submitting your assignment on time.

Otherwise, if your homework is submitted late and you are out of late days, it will get a zero.

I may give one or two extra free late days throughout the semester in case it seems like many people need them (but don't count on this).

10.4 Regrade requests

If you would like to request a regrade, make a private post on Ed explaining why you think your submission deserves more points. Then, we will take a look at it and regrade the question.

11 Special Considerations

If you find that illness or other emergency is preventing you from being able to complete homework on time or write a test, please follow these two steps:

- a.) Fill in the [Absence Declaration Form](#). on ACORN
- b.) Complete the [SpecialConsiderationForm.pdf](#) an email it to csc236-2022-05@cs.toronto.edu.

You will be required to affirm that you are abiding by the [Code of Behaviour on Academic Matters](#). In particular

it is an offense to engage in any form of cheating, academic dishonesty or misconduct, fraud or misrepresentation not herein otherwise described to obtain academic credit or another academic advantage of any kind

That is, that you are truly experiencing an emergency and acknowledge that to claim so falsely is an academic offense. Please note that a heavy workload or coinciding due dates do not constitute an emergency. Applying does not guarantee that you will be granted special consideration.

Important: Submit your request soon as possible if you find yourself in such a situation. It is easier to resolve situations earlier rather than later. If your emergency will affect your ability to complete coursework for more than a few days or in multiple courses, we recommend you also talk to your registrar.

12 Use of the Discussion Board

Please use Ed! Ask and answer many questions! Please remember to be respectful when interacting on the discussion board - we are all here to learn!

To encourage you to be active on Ed, **there is a 2% grade boost** (i.e., if you were at 79%, you will now be at 81%) for the top 3 contributors on Ed.

13 Participation

Participation is encouraged at both lectures and tutorials. However, it is not required for your grade.

14 Academic Integrity

You can work with other groups. However, You must do all write-ups independently of other groups. If you discussed ideas with another group, make a note of who you discussed ideas with on the write-up.

It is an academic offense to copy the work of anyone else. It is also an academic offense to let your work be copied by someone else.

The midterm and final exams are strictly no collaboration. They will be administered in person.

In general, you should follow the policies found [here](#).