Introduction to Discrete Mathematics

Introduction to ideas and methods of discrete mathematics and their application.

Term	Day	Start Time	End Time	Building	Room
1	Tue Thu	14:00	15:30	Frederic Lasserre	102

Instructor: SOLYMOSI, JOZSEF

For contact use Canvas' email system. Emails sent to my ubc email address might not be answered.

Important term dates:

First midterm: Oct 04

Second midterm: Nov 03

Both exams are at 2:00-3:30 pm in class. No makeup exams will be given. For details about missed exams please read the section later in this document.

Quiz 1: Sept 27

Quiz 2: Oct 27

Marking

Your mark will be based on homework assignments, two midterm exams, two quizzes and one final exam, weighted as follows:

- Homework: 10%
- Midterm I: 15%
- Midterm II: 15%
- Quiz 1: 3%
- Quiz 2: 3%
- Solve a Rubik's cube: 4%
- Final Exam: 50%

Rubik's Cube

There will be a special class on Nov 24. You will demonstrate you can solve a Rubik's cube (3x3). This is a very combinatorial exercise and trust me, everyone can learn how to solve it. It will be fun and you will earn 4% of your course mark. (More details are coming later)

Homework

There will be regular homework posted on Canvas. You have to type the answers using a technical typesetting system, called LaTex. In case you don't know it: LaTex is very easy to learn and it will be useful in your future studies and work. I suggest using the online system, Overleaf.

https://www.overleaf.com/

You should submit your solutions in a pdf file generated by the latex editor. I will post the questions in tex, so you can easily edit the file to write your answers directly there.

Office Hours

Wednesdays 15:30-17:00 (MATH 220)

Learning outcome

Discrete math is a fun part of mathematics, but it is also a very hard field. Hard in an unusual way; you don't have to perform long and difficult calculations to get the right answer. It is more like solving a puzzle. Even if it is hard to find the answer, once you see the solution, the problem often seems quite easy. Sometimes you even feel a bit silly not seeing the "simple" solution right away.

In this course you will learn and practice a new way of mathematical thinking. Some of you have experience with this, it is like solving problems in a math competition. You read the question and try to find the right approach to crack the problem. Unlike in calculus, here, similar sounding problems might need very different techniques to solve them, so you can't simply repeat the method you learned in class like applying a formula, instead you need to approach each problem critically.

The key learning outcome is for you to be able to take the ideas behind one set of problems and to apply them to brand new problems. For all topics we cover, we will see simple examples first and practice them a bit before dealing with harder problems.

Missed midterm

If you miss the midterm, you will need to provide a documented excuse. Examples of valid excuses are an illness which has been documented by a physician or Student Health Service, or an absence to play a varsity sport (in which case your coach will provide you with a letter to give to your instructor). In the case of an illness, your instructor must be notified within 48 hours of such an absence, and appropriate documentation must be produced within 7 days of the absence. In the case of a varsity sport event, your instructor must be notified at least 7 days in advance of such an absence. The best approach is to inform your instructor as early as possible in the term and as soon as you know the dates of your varsity sport event. Failure to comply with these time limits, or failure to provide a documented excuse, will result in a mark of 0 for that midterm.

A physician's note must specifically state that the student was medically unfit to write the missed midterm on the corresponding date. It must also include a phone number where the physician can be reached. Absence of this exact information, or illegible information, will result in a mark of 0 for that midterm.

If you miss a midterm due to an urgent and serious family event, you should go to your program's advising office (in Science or Engineering or Arts, for example) and obtain a Letter of Consideration or similar documentation.

Missed final exam

The UBC calendar has detailed regulations on illness, academic concessions, and deferred standing. If you miss the final exam, you will need to present your situation to the advising office for your faculty (for example, the Faculty of Science) to be considered for deferred standing. You must do so within 48 hours of the missed final exam.

Your performance in a course up to the exam is taken into consideration in granting a deferred exam status (for example, failing badly generally means you won't be granted a deferred exam). In Mathematics, generally students sit the next available exam for the course they are taking, which could be several months after the original exam was scheduled.

Support

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the https://senate.ubc.ca/policies-resources-support-student-success UBC Senate website.

 You will find further info following the link https://www.math.ubc.ca/general-syllabus-information

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the Musqueam people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on in their culture, history, and traditions from one generation to the next on this site.