

COURSE OUTLINE
SC/MATH 1019B 3.00 - FALL 2018
DISCRETE MATHEMATICS FOR COMPUTER SCIENCE

BASIC INFORMATION

Instructor: John Machacek

Email: machacek@yorku.ca

Office: 2025 DB (Victor Phillip Dahdaleh Building)

Office hours: Tuesday 1:15pm - 2:15pm, Thursday 10:00am - 11:00am

Classroom: VH B (Vari Hall Room B)

Days and Times: Tuesday & Thursday from 11:30am - 1:00pm

Webpage: www.yorku.ca/machacek/MATH1019B_F18

Textbook: Kenneth H. Rosen, *Discrete Mathematics and Its Applications*, McGraw-Hill, 8th Edition

Course description: Introduction to abstraction. Use and development of precise formulations of mathematical ideas. Informal introduction to logic; introduction to naive set theory; induction; relations and functions; big O-notation; recursive definitions, recurrence relations and their solutions; graphs and trees.

The plan is to cover the following material from the text book.

- Chapter 1: 1.1, 1.3 - 1.8
- Chapter 2: 2.1 - 2.5
- Chapter 3: 3.2
- Chapter 5: 5.1 - 5.3
- Chapter 8: 8.1 - 8.3
- Chapter 9: 9.1, 9.3 - 9.5
- Chapter 10: selected topics
- Chapter 11: selected topics

Learning outcomes: It is my goal that at the conclusion of the course student students will:

1. Understand what is (discrete) mathematics.
2. Understand the relevance and importance of discrete mathematics to the field of computer science.
3. Understand how to write and recognize rigorous proofs.

Prerequisites: SC/MATH 1190 3.00, or two 4U Math courses, including MHF4U (Advanced Function).

Course credit exclusions: LE/EECS 1028 3.00, SC/MATH 1028 3.00, SC/MATH 2320 3.00.

GRADES AND DATES

Grades will be determined by the following scheme with final grade assigned according to [York University's grading scheme](#).

Homework	20%
Test 1	15%
Test 2	15%
Test 3	15%
Final exam	35%

There will be four homework assignments. The homework assignments will be posted on the course webpage. The due dates for the homework assignments are the following dates.

Homework 1	Sep. 20
Homework 2	Oct. 23
Homework 3	Nov. 20
Homework 4	Dec. 4

The three in class tests will be on the following dates. The tests will be 60 minutes.

Test 1	Oct. 2
Test 2	Nov. 1
Test 3	Nov. 29

The date of the final exam will be announced at a later time. The final exam will be during the final exam period Dec. 6-21. Students should be aware the **important dates** listed by the registrar's office. These important dates include add/drop and financial deadlines.

COURSE POLICIES

Missed or late homework: Homework is to be brought to class on the due date. Late homework will not be accepted. If a student does not turn in ONE homework assignment, then the student's homework grade will be computed on the remaining homework assignments without penalty. For students turning in all homework assignments, the lowest homework score will be omitted in computing the homework score.

Missed tests: Students with a documented reason for missing ONE test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (e.g., doctor's letter) may request accommodation from the Course Instructor in the form of transferring the weight of the missed test (15%) to the final exam.

Missed final exam: The instructor must be notified by email no later than 24 hours after the missed final exam. To make up the final exam, an Attending Physicians Statement (APS) must be completed by the student's health provider, and a clear photo or scan of the APS must be emailed to the instructor within 48 hours of the missed exam. The APS form can be downloaded from <http://myacademicrecord.students.yorku.ca/deferred-standing>. No other form of doctor's note will be accepted. The student must also complete and submit

the Final Exam/Assignment Deferred Standing Agreement form within one week after the missed final exam. If the APS meets the above requirements the instructor will sign the deferred standing agreement and the student will write an exam set by the Department of Mathematics and Statistics. If, however, the APS does not meet the above requirements, there will be no agreement to deferred standing and the student must petition their home Faculty. If the petition is successful, the student will have the opportunity to write an exam at a date the instructor chooses within the window handed down by the petitions committee. Complete details, information & deadlines for this process can be found at <http://myacademicrecord.students.yorku.ca/deferred-standing>.

Academic Integrity: All Students are Expected to Engage in Academically Honest Work Academic integrity benefits everyone in our community. It not only helps you reach the real goal of this class-learning, but also allows for the university and program to be perceived positively by others. When students are dishonest, they lose out on valuable learning that will help them perform well in their career. It can also negatively impact all of the students in the program and at the institution by creating negative mindsets which may result in fewer outside learning opportunities for students. Academic dishonesty is any attempt by a student to gain academic advantage through dishonest means or to assist another student with gaining an unfair advantage. Academic integrity is important regardless of whether the work is graded or ungraded, group or individual, written or oral. Dishonest acts are major academic offences and carry serious penalties, ranging from a failing grade on the plagiarized work to expulsion from the university. For more details, see [York's Academic Honesty Policy](#) and information on [Academic Integrity for Students](#).