

MATH 339 (COMP 339)
Combinatorics
Fall 2014

- Instructor:** Dr. J. Macdonald, Office: LB 1036 (SGW), Phone: (514) 848-2424, Ext. 2128
Email: jeremy.macdonald@concordia.ca
- Office hours:** _____
- Course Description:** General principles of counting, permutations, combinations, identities, partitions, generating functions, Fibonacci numbers, Stirling numbers, principle of inclusion and exclusion. Graphs, subgraphs, isomorphism, Euler graphs, Hamilton paths and cycles, planar graphs, Kuratowski's theorem, trees, colouring, 5-colour theorem, matching, Hall's theorem.
- Course Website:** Important information regarding the course, including assignments, notifications, notifications, and additional material will be posted on the Moodle site.
- Textbook:** *Discrete and Combinatorial Mathematics: An Applied Introduction*, 5th Edition, by Ralph P. Grimaldi.
- Prerequisites:** COMP 232 or eighteen credits in post-CEGEP mathematics. Basic knowledge of computer programming is also recommended (you should be able to read simple pseudo-code).
- Assignments:** Written assignments will be given weekly, posted on Moodle. Assignments must be written *neatly* and solutions described *clearly*. Marks may be deducted for writing that is hard to read or arguments that are hard to follow. Assignments must be submitted on the due date during lecture. Late assignments will be penalized 25% for the first day, 50% for the second day, and otherwise not accepted. It is your responsibility to ensure that I receive your late assignment. Requests for a one-week extension will normally be granted for each student *once* during the course.
- Collaboration on Assignments:** You may discuss the assignments with other students, but you must write up your own solution without access to another student's work. You may not ask for solutions on internet forums. Please ask instructor or teaching assistant for a hint if you are stuck on a problem.

Midterm Exam: There will be one midterm exam in class on **Wednesday, October 15.**

Evaluation: The final grade will be calculated as maximum of
Assignments (20%) + Midterm Exam (25%) + Final Exam (55%)
and
Assignments (10%) + Midterm Exam (10%) + Final Exam (80%).

Calculators: If you wish to use a calculator on the midterm or final, your calculator must be one of the approved models listed on the Math & Stats department website, and bear an approval sticker.

Disclaimer: In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.