

Math 3V03 Graph Theory Information Sheet Term 1 Fall 2009–2010

Instructor:

Dr. Salih Azgin, HH 409, sazgin@math.mcmaster.ca
Office Hours: Monday, Wednesday 11:30–12:30

Website: <http://www.math.mcmaster.ca/~sazgin/3V03-2/3V03.html>

Text: *Introduction to Graph Theory, 2nd edition* by Douglas B. West, Prentice Hall.

Course objective: To learn the fundamental concepts in graph theory, with a sense of some of its modern applications. Also, to learn to understand and create mathematical proofs, including an appreciation of why this is important.

Course outline: Graphs: definition, examples, elementary properties. Trees, matching, connectivity, coloring, planar graphs. We will cover chapters 1,2 in detail and selected material up to chapter 7.

Lectures and Tutorials: There will be three lectures per week. There are no tutorials.

Assessment: Your grade will be based on homework assignments, two in-class midterms and the final exam. The distribution is as follows, although the instructor reserves the right to change the weight of any portion of this marking scheme.

Homework — 35%

Midterm I — 15%

Midterm II — 15%

Final — 35%

The tentative dates for tests and exams are:

Midterm I: Thursday, 8 October, in class

Midterm II: Thursday, 19 November, in class

Homework: There will be eight homework assignments, due approximately every week on thursday (exact dates are on the website). The homework is to be handed in IN CLASS on the date given. The homework will stress problems involving proofs, so that you can learn this aspect of the course, and have some feedback on how you are doing on it. The lowest grade on the homeworks will be dropped. If you receive nonzero grades in all of the homework sets you receive a 3% BONUS that counts towards your final grade.

In addition, there will be more conceptual and example problems, which will be assigned together with the homework. You do not have to write anything down for these problems, but I expect you to be prepared to answer questions on them when they are discussed in class. I cannot stress too strongly that to learn mathematics you must DO it.

Exams: The exams will involve both theory and examples. You will be required to state definitions, prove theorems that you have seen before, and solve problems similar to the homework, that may involve proofs. The midterms will be held during class time.

All work submitted must be YOUR OWN. At the same time, you are encouraged to discuss problems and general ideas with each other. Mathematics need not be an isolating activity. What you may not do is to copy someone else's work.

Important reminders:

Late assignments will not be marked. Solutions will be posted as soon as the due time has passed.

Only excuses validated by the Dean's office will be accepted for missing any examinations. You must bring your student ID to the midterms and the final exam.

Calculators are not allowed in the midterms and final exam.

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

Final Policy Notes:

(i) It seems unfortunate but necessary to reproduce the words of the dean on cheating: *Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.*

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at

<http://www.mcmaster.ca/senate/academic/ac-integrity.htm>

The following illustrates only three forms of academic dishonesty:

Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.

Improper collaboration in group work.

Copying or using unauthorized aids tests and examinations.

(ii) The instructor reserves the right to change or revise information contained in this course outline.