Computing Science Course Outlines

MACM 101 - D100 Discrete Mathematics I

Instructor(s): Binay Bhattacharya

Calendar Objective/Description:
Introduction to counting, induction, automata theory, formal reasoning, modular arithmetic.

Instructor's Objectives:
This course is an introduction to discrete mathematics. The course will focus on establishing basic principles and motivate the relevance of those principles by providing examples of applications in Computing Science and other related areas.

Prerequisites:
BC Math 12 (or equivalent, or any of MATH 100, 150, 151, 154, 157 Quantitative/Breadth-Science

Topics:
- Counting
- Logic and Quantifiers
- Set Theory
- Formal Reasoning and Induction
- Functions and Relations
- Number Theory
- Graphs and Trees (if time permits)

Grading:
There will be several assignments, one or two midterms, and a final exam. The details will be discussed in the first week of classes.

Students must attain an overall passing grade on the weighted average of exams in the course in order to obtain a clear pass (C- or better).

Required Books:

Recommended Books:

Academic Honesty Statement:
Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).