

# Introduction to Graph Theory

## Math 3260

### Announcements:

The midterm exams will be on Monday, February 3 and Monday, March 24

Topics: Graphs, digraphs. Eulerian and Hamiltonian graphs. The travelling salesman. Path algorithms; connectivity; trees; planarity; colourings; scheduling; minimal cost networks. Tree searches and sortings, minimal connectors and applications from physical and biological sciences.

York University  
 Professor Mike Zabrocki  
 MW 2:30-4pm CLH 110  
 Office: Ross S615  
 Office hours: M4-5pm F11:30-1pm  
 or by appointment  
 Best way to contact me:  
 zabrocki@mathstat.yorku.ca

Course description: A first course in graph theory. After considering introductory material on graphs and properties of graphs, we shall look at trees, circuits and cycles. Graph embeddings, labelings and colourings, with some applications, will also be covered.

Prerequisite: At least six credits from 2000-level (or higher) MATH courses (without second digit 5, or second digit 7 in the case of Atkinson), or permission of the instructor.

Text: Introduction to Graph Theory by Robin Wilson (4th ed)

The grade in this course will be based on the following criterion:

1. Homework 20%
2. Midterm exams (2) 40%
3. Final exam 40%

Problem Session: Wednesday 4:30pm N501  
 Teaching Assistant: Li Gang

The homework is for your benefit so it is in your interest to spend some time doing the problems each week. Struggle with them for a while before getting help from either myself, the TA, or your fellow students. Do not copy homework assignments.

Week	Topic/sections in text	Homework	Solutions
1	What is a graph? graph isomorphisms		