CMPT 307 - D100 Data Structures

Instructor(s): David Mitchell

SFU Burnaby

Calendar Objective/Description:
Data Structures

Instructor's Objectives:
The objective of this course is to introduce concepts and problem-solving techniques that are used in the design and analysis of efficient algorithms. This is done by studying various algorithms and data structures.

Prerequisites:
see go.sfu.ca

Topics:
- The following topics may be included:
  - Basic graph algorithms
  - Greedy algorithms
  - Divide and conquer algorithms
  - Dynamic programming algorithms
  - Network flow algorithms
  - Randomized algorithms
  - NP-Completeness
  - Data structures supporting algorithms studied

Grading:
Grading will be based on six in-class quizzes and a final exam. Details will be provided in the first week of classes.

Required Books:
Algorithm Design, J. Kleinberg, É. Tardos, Addison Wesley, 2006, 9780321295354, Available in various forms online, as well as hard cover.

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 ).