CP312: Algorithm Design and Analysis I

Course Outline

Course Summary

Analysis of the best, average, and worst case behaviors of algorithms. Algorithmic strategies: brute force algorithms, greedy algorithms, divide-and-conquer, dynamic programming, backtracking. Fundamental computing algorithms: O(n log n) sorting, depth-and breadth-first search of graphs.

Prerequisite: CP213 (MA238 recommended)

Lectures: M W F 9:30-10:20am, Room: BA 201

Instructor: Eugene Zima

> Office: N2087
> Phone: x2796
> Office Hours: M W 10:30-11:30 or by appointment
> Email: ezima [aT] wlu [DoT] ca

Textbook: Cormen, Leiserson, Rivest, and Stein. **Introduction to Algorithms** (3rd ed.), MIT Press, 2009.

Grading:
- Assignments: 30%
- Tests and quizzes: 40%
- Final exam: 30%

Students must pass the tests in order to pass the course (weighted average of 2 tests and final exam needs to be greater than 49%).

Important Dates:

Assignment 1 due:	September 23
Assignment 2 due:	October 11
Quiz 1:	October 23
Test 1 (in class):	**October 25**
Assignment 3 due:	November 4
Quiz 2:	November 13
Test 2 (in class):	**November 15**
Assignment 4 due:	November 18
Assignment 5 due:	December 2

Assignments
- No late assignment will be accepted.
- Students may request a reassessment of their assignments in writing and specify the reasons for such requests. Their entire assignment will be reassessed and the reassessment may result in raising or lowering of the original marks. Request for reassessment is to be submitted by e-mail to the instructor **no later than 14 days** after posting assignment grade on MyLearningSpace.
- Assignments submission will be via **MyLearningSpace**.
- **Assignments are to be your own work and collaboration is not permitted.**
- More details will be given in the course entry at MyLearningSpace.

Regulations

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