Course Information

Web. www.cs.umanitoba.ca/~comp2140

Section:	A01	A02
Lectures:	Tuesday and Thursday	Monday, Wednesday, and Friday
	$2:30 \text{ pm}{-}3:45 \text{ pm}$	1:30 pm-2:20 pm
	EITC E2-165	EITC E2-105
Instructor:	Steph Durocher	Rob Guderian
Office:	EITC E2-412	EITC E2-483
Phone:	(204)474-8674	(204)474-8691
Email:	durocher@cs.umanitoba.ca	robg@cs.umanitoba.ca
Office hours:	Tuesday and Thursday	Monday, Wednesday, and Friday
	$3:45 \text{ pm}{-4:30 \text{ pm}}$	$2:30 \text{ pm}{-}3:30 \text{ pm}$

Prerequisite. COMP 1020: Introductory Computer Science 2

Course Description. COMP 2140 is an introduction to the representation and manipulation of data structures and the development and analysis of efficient algorithms. Topics will include lists, stacks, queues, trees, and graphs. Emphasis will be placed on abstract data types, leading to implementation in Java following the object-oriented programming paradigm.

Textbook. M. Goodrich and R. Tamassia. *Data Structures and Algorithms in Java, 5th Edition*. Wiley, 2010.

Grading. Course work will be evaluated by six assignments, five labs, two quizzes, a midterm exam, and a final exam. Grades will be calculated according to the following table.

15%
10%
10%
25%
40%

Assignments. Assignments will be distributed in class. Solutions must be submitted by 4:00 pm on the due date. To permit the prompt distribution of solutions and return of marked assignments, late assignments will not be accepted. Please include your name and student number on all submitted material.

Labs. Five labs will be held during the term. All labs are held in EITC E2-450. Attendance is mandatory to obtain a non-zero grade on lab assignments. Due to limited seating, each student must attend the lab section for which he/she is registered.

B01	Friday	11:30 am–12:45 pm	B06	Thursday	$8{:}30$ am– $9{:}45$ am
B02	Wednesday	$8{:}30$ am– $9{:}45$ am	B07	Thursday	11:30 am–12:45 pm
B03	Wednesday	10:00 am–11:15 am	B08	Thursday	1:00 pm-2:15 pm
B04	Wednesday	$2:30 \text{ pm}{-}3:45 \text{ pm}$	B09	Friday	10:00 am–11:15 am
B05	Wednesday	4:00 pm-5:15 pm			
Lab teaching assistants: Bhavek Budhia, Andrew Winton, Ryan Zier-Vogel					
Markers: Stela Seo, Mohammad Wahid					

Fall 2011, ROASS document

Examinations. Two quizzes will be given in class on October 3/4 and November 28/29. A typical quiz will last 20 minutes and will consist of two or three problems similar to those from recent assignments. There will be a midterm exam held from 7:00 pm-8:30 pm on November 2, and a final exam held during the exam period. Exams and quizzes will be closed book.

Important Dates. The following dates are subject to change.

September 8	classes begin	November 9	a4 due
September 23	a1 due	November 11	Remembrance Day: no class
September $28/29/30$	lab 1	November $16/17/18$	lab 4
October $3/4$	quiz 1 (in class)	November 25	a5 due
October 7	a2 due	November $28/29$	quiz 2 (in class)
October 10	Thanksgiving: no class	Nov. $30/\text{Dec. }1/2$	lab 5
October $12/13/14$	lab 2	December 7	a6 due
October 21	a3 due	December 7	classes end
October $26/27/28$	lab 3	December 21	exam period ends
November 2	midterm $(7:00 \text{ pm} - 8:30)$) pm)	

Course Outline. The course covers the following topics. Specific topics and their ordering may be modified as the course schedule permits.

Course Topic	Textbook Reference
algorithmic problem solving	
abstract data types	2.1
runtime analysis	4.1, 4.2
iteration and recursion	3.5
dictionaries	9.5
arrays and linked lists	1.5, 3.1 - 3.3
stacks and queues	5
binary trees and search trees	7, 10.1, 8.3
priority queues	8.1, 8.2
sorting	3.1.2, 11.1, 11.2, 8.3.5
hash tables	9.2
graphs	13

Academic Integrity. Students are encouraged to discuss course concepts and the general interpretation of homework problems with other students in the class. No written record should be taken from such discussion. Each student must work on the final solution of assignment problems independently. On a cover page, each student must list the names of people with whom he or she has discussed the assignment solution. Submitting the work of another person as your own constitutes academic misconduct. Any collaboration that does not follow these guidelines will be considered plagiarism and will be reported to the Faculty of Science. Students are to abide by the university's policies regarding academic dishonesty which can be found online at:

http://webapps.cc.umanitoba.ca/calendar11/Academic%20 Regulations.pdf