

**University of Windsor - School of Computer Science**  
60-254 Data Structures and Algorithms - Fall 2014

**Instructor:** Dr. Asish Mukhopadhyay  
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**Off. Hrs.:** TR, 3pm - 4pm

**Lectures**

(TR) 11:30-12:50 in ER 3123

**Labs**

(T) 01:00-02:20 (Sec 51) in WL 305

(R) 01:00-02:20 (Sec 52) in WL 305

(F) 03:00-04:20 (Sec 53) in ER 3119

Attendance at all labs is compulsory. Barring logistical problems, labs will start in the 2nd week of September, 2014.

**Prerequisites**

You are required to have passed a C-programming course (that is, either 60-141 or 60-206). No exceptions will be made.

**Textbook**

*Introduction to Algorithms* by Cormen, Leiserson, Rivest and Stein; 2nd Edition, McGraw-Hill, 2001.

**Supplementary material**

A set of course-notes, prepared by me, is available for purchase from Document and Imaging Services. My lectures will be based on these course-notes.

**Course Goals**

The purpose of this course is to teach you the principles of good algorithm design and the role data structures play in this. You will also learn how to analyze algorithms - a skill that helps you to compare and evaluate competing algorithms that solve the same problem.

Labs are an important part of this course where you will implement (in C only; not C++, not JAVA) the algorithms and data structures that you learn about in the classroom lectures. These will help you in consolidating the concepts discussed in the lectures, and also to check how practice matches theory.

**Evaluation scheme**

1 Midterm	worth 20%
10 Labs	each worth 3%
Final Exam	50%

**Midterm dates**

Midterm: Tuesday, 21 Oct, 2014, in class

**Policies**

The Midterm test if missed, for any reason whatsoever, will not be made up. In case a student misses the test for a valid reason, supported by appropriate documentation, e.g. a doctor's note, the mark for the test will be carried over to the final. The final exam must be written in order to obtain a grade for the

course.

If, for reasons beyond your control, you miss the final exam you must contact me immediately. If you have been ill, you must provide a note from your doctor stating explicitly that you were incapable of writing the final exam on the scheduled date. If I am satisfied with the reasons for missing the final exam, a date for the make-up final will be announced on the course website.

Cases of cheating and plagiarism will be dealt in accordance with University by-laws.

SET (Student Evaluation of Teaching) will be conducted in the last week of class.

No student is allowed to take this course for the third time without permission from the Dean.

### **Tentative Lecture Schedule**

The Chapter numbers refer to those in my courseware.

<b>Chapter</b>	<b>Topic</b>	<b># Lectures</b>
1	Introduction	1
2	Algorithm Analysis	2
3	Linear lists	2
4	Recursion	4
5	Sorting	3
6	Non-linear lists	3
7	Hashing	2
8	Applications	5
	Review	1