Algorithms and Complexity

Introduction
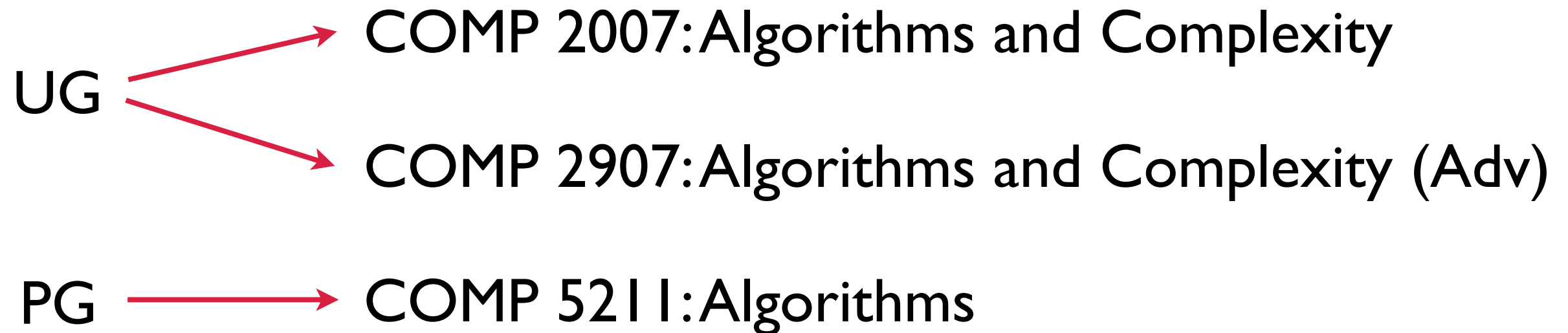
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The University of Sydney

UG → COMP 2007: Algorithms and Complexity

UG → COMP 2907: Algorithms and Complexity (Adv)

PG → COMP 5211: Algorithms

All three units share this lecture time. But there are differences, so each unit has its own blackboard website.
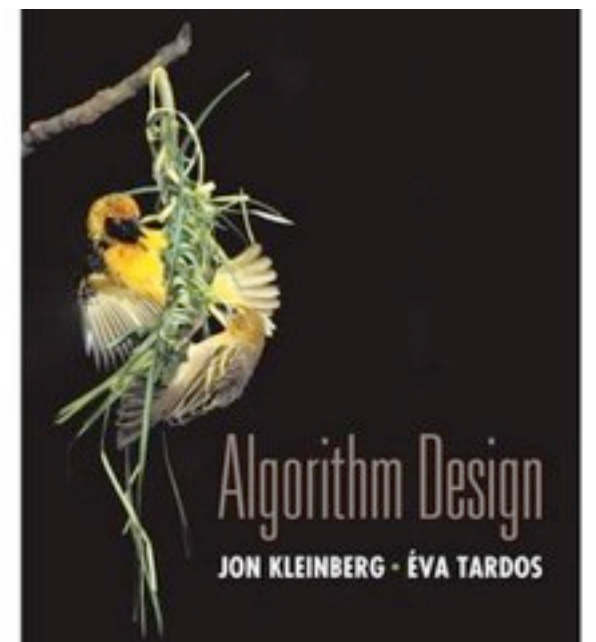
Timetable

- Lecture: Mondays 10:00am-noon, Merewether Lecture Theatre 2
- Adv. lecture: Mondays 4:00pm-5:00pm, New Law School Seminar 030

Textbook

- "Algorithm Design" by Tardos & Kleinberg

Blackboard

- http://elearning.sydney.edu.au
- more information about the class
- quizzes and assignments
- lecture streaming

This unit provides an introduction to the design and analysis of algorithms. Its main aims are

- (i) learn how to develop algorithmic solutions to computational problem
- (ii) develop understanding of algorithm efficiency and the notion of computational hardness.

Assume basic knowledge of discrete math

- graphs
- big O notation
- proof techniques

We will have three kinds of assessments

- Assignments (20%)

- Quizzes (20%)

- Final exam (60%)

Exam barrier of 40%

There will be 12 short homework assignments

The objective of these is to teach problem solving skills

Assignments will be released on each Tuesday of weeks 1-12, and will be due on Tuesday of the following week

Your assignment mark will be based on the best 10 out of 12 individual assignments marks. It represents 20% of your final mark

Some assignments will involve programming in Python.
We will use MOSS for detecting code similarities.

There will be 12 short quizzes during the tutorials

The objective of these is to re-enforce the lecture material

You will take you quiz in the first 15 minutes of your tutorial of weeks 1-12

Your quiz mark will be based on the best 10 out of 12 individual quiz marks. It represents 20% of your final mark

The final will be 2.5 hours long. It will consist of 5 problems similar to those seen in the tutorials, plus on challenge problem

The final will test your problem solving skills

There is a 40% exam barrier

The final exam represents 60% of your final mark

My advice is to work hard on the assignments
- If you do, the final should be easy
- If you don't, you will most likely fail the final

Unless your's is a personal issue, do not sent us direct email.

There will be a blackboard forum to ask questions to the teaching staff. Post your questions there instead so that others can benefit from the answers.

Procedures & Evacuation

- Check for any sign of immediate danger

- Shut down equipment

- Follow exit signs in orderly fashion, to assembly areas, as indicated by wardens

- Do not use lifts

Emergency contact numbers

- Dial 0-000 (from internal phone) or University Security on 9351-3333

- First aid kit available in kitchen area adjacent to Lab 110 in SIT Building.

- First aid officers in SIT Building are Will Calleja (1W) and Witek Janus (1E)

- Nearest medical facility – University Health Service in Level 3, Wentworth

General Housekeeping

- Keep work area clean and orderly

- Remove trip hazards around desk area

- No food and drink near machines

- No smoking permitted within University buildings

- Do not unplug or move equipment without permission

Report incidents:

- Katie Yang (Undergraduate)

- Cecille Faraizi (Postgraduate), or

- Shari Lee (School Manager)