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School of Computer Science

COMP SCI 2103/7103 Algorithm Design & Data Structure Course Profile and Assessment Information

adelaide.edu.au

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Welcome

Welcome to CS 2103/7103, Algorithm Design and Data Structures.

- In this lecture we will:
 - Discuss some key administrative issues.
 - Describe what we're going to do in this course.
 - Talk about this week's assignment.
 - And how to submit

Teaching Staff

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Lecturer & Course Coordinator

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Tutors:

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Practical Demonstrators:

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- Alexa Nguyen
- Hamish Pratt
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Pre-requisites

- Who should be here?
 - You have passed CS1102/1202 (OO Programming)
- Who should not be here?
 - Anyone who has done CS2004 (DSA) or CS1103/2103.
 - Anyone who is currently enrolled in 1102/1202!

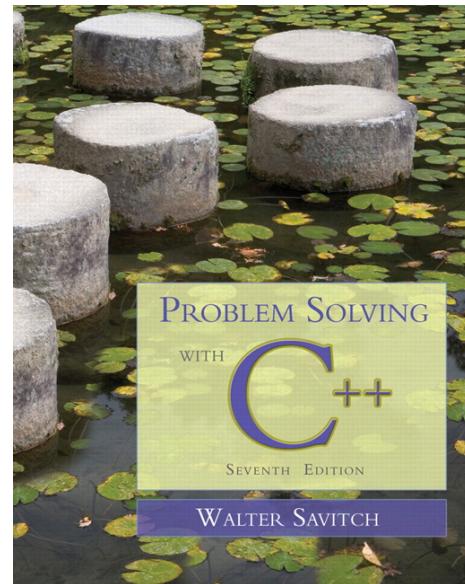
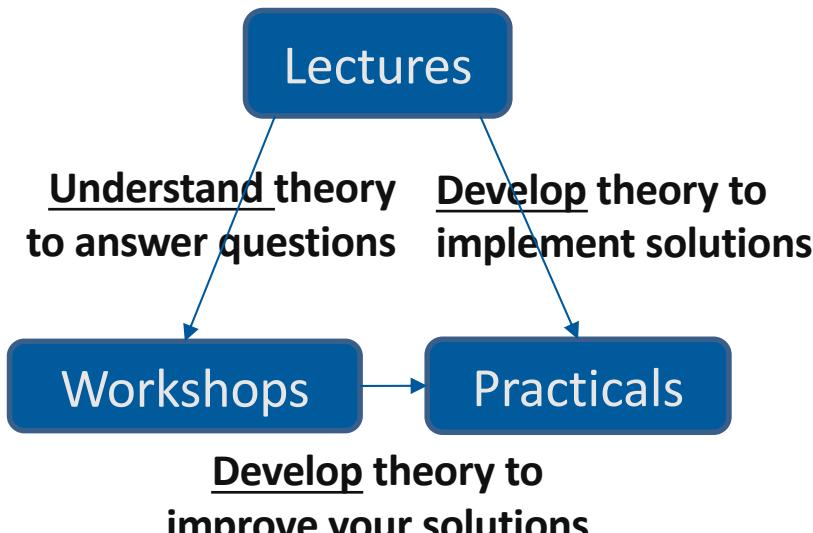
Where to find information

- Lectures!
- The forums for this course, found on MyUni
- Your own e-mail, once you've signed up to the course forums. Please don't unsubscribe from discussions!
- The course outline, available on-line
<https://www.adelaide.edu.au/course-outlines/107592/1/sem-2/>
- The course planner page, available on-line
<https://access.adelaide.edu.au/courses/search.asp>
- If you have any questions regarding this course and cannot find the answer in these places,
 - Use discussion board to ask others
 - For personal issues, please send an email to Mojgan with [ADDS] in subject line.

Course Organisation

– How the course is structured:

- Three lectures per week
- Practical session every week from Week 2
- Workshop session every second week from Week 2



Problem Solving in C++
9e Global Edition,
Walter Savitch, ISBN-
13:9781292018249,
Addison-Wesley,
2015.

Outline of the course

- ADTs
- Inheritance
- Polymorphism
- Recursion
- Complexity
- Searching and Sorting
- Linked lists
- Trees
- Algorithmic strategies



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Assessment

Assessment

- This course has 4 components:
 - Written examination, 50%
 - 8 practical assignments, 25% (3% each except for last assignment that is worth 4%)
 - Prac examinations, 20% (two! 10% each)
 - 6 workshops (tutorial assignments), 5% (1% each, maximum mark of 5% in this component)
- You are expected to participate in all activities.
- **Hurdle:** You need at least 40% of the mark of the written examination to pass this course.

Prac Examinations

- There will be two practical exams: weeks 6 and 12
- Attend your **enrolled** practical session. Send me an email if you cannot attend that session.
- These are sessions where you will be coding in a fixed time with unseen problems.
- This will take place in a closed lab,
 - You will have to use lab computers and work with linux.
 - No laptop or mobile phone
 - No internet access.
 - You will have access to your svn repository, and the websubmission system though.
 - You can also bring your notes.
- Could not attend due to medical situation?
 - We will arrange a supplementary exam

Tutorial Assignments

- **Workshop sessions: every even week (2, 4, 6, 8, 10, 12)**
- **6 tutorial assignments – 1% mark each**
- **Due, Sunday night the week before- late submissions are not marked**
- **Individual & Group discussion questions**
 - Individual questions are peer reviewed.
- **Attend the tutorial sessions**
 - To get the answers of the tutorial assignment questions
 - Most of the discussions in these sessions will not be given in the lectures, but they may help you with the final exam
 - You can ask your questions in these sessions

Practical Assignments

- **Due end of every week (2, 3, ..., 10)**
- **Released on the Monday in week i-1**
- **Due Friday 11:59pm in week i**
- **Marked during practical sessions of week i+1**
 - **Attend if you want a feedback**
- **Ask your questions in week i-1 and i from practical demonstrators.**
 - Try to finish it in week i-1. You can attend all practical sessions of week i-1 and i to get help or to be marked.
 - If you did not receive the full mark, then you can improve your work, resubmit before the deadline and attend a practical session in week i+1 for a remark
- There is also a self-assessment exercise provided for the first week (optional)
- Practical sessions of week 11 are for marking the last assignment and answering your questions, if any!

How to submit your online assessments

Students are expected to submit their assignments by the due date.

Guide to submitting assignments online:

- **Tutorial Assignments** - MyUni
- **Practical Assignments** – Websubmission
 - Will be explained in a few minutes
 - Practice this week
 - Get help from practical demonstrators next week
 - If you do not manage to submit to web-submission system, you will not be marked for that assignment

Practical Assignment Late Submissions

- You should hand your coursework in on time.
- If you hand in your work late, your mark will be capped, based on how many days late it is.
 - 1 day late – mark capped at 75%
 - 2 days late – mark capped at 50%
 - 3 days late – mark capped at 25%
 - more than 3 days late – no marks available
- **A late submission will not reduce your current marks!**
- One late assignment will turn into two, three or more!
- Hand in early!

Assignment Extensions

- You may be granted medical or compassionate extensions.
- You must provide **supporting evidence**, such as medical certificates or counseling service letters.
- You should also apply for extensions as soon as possible, definitely before the assignment deadline passes!
- Extension requests should be made to the course coordinator.

Grades

Mark	Grade		Notes
85-100%	High Distinction	HD	Great!
75-84%	Distinction	D	Very good
65-74%	Credit	C	Good
50-64%	Pass	P	Satisfactory
0-49%	Fail	F	Cannot count this course for points or as a pre-requisite.
0%	Fail No Submission	FNS	No work submitted for assessment
	Result Pending	RP	Mark has not yet been finalised.

- If you see an RP on your transcript, it means that your mark is not currently available. If you don't know why, you should contact your course coordinator.

Minimum Performance

- Overall, you need at least 50%
- As I said, the final written exam is with hurdle
 - If your mark for this exam is less than 40% of the allocated marks for that, your overall mark will be capped at 44F.

Absence during the semester

- We expect you to be able to attend all coursework, lectures, examinations and, if required, supplementary examinations. You should be here, in Adelaide, and on campus or at the designated location at all of these times.
- If you leave Adelaide, or the state, or the country, without making prior arrangements with the course coordinator, we will not provide extensions or move examinations just to accommodate you.
- Even if you contact the course coordinator, we may still not be able to help you unless you have an exceptionally good reason for your absence. Examinations, in particular, effectively never move. It may be possible to arrange extensions, with enough notice and reason.
- If you have a genuine medical or compassionate reason that requires you to leave the University during the academic year, you should get in contact with the course coordinator immediately to discuss your options.

Examinations

- Go to the University Examinations Site for information on Examinations:
 - <http://www.adelaide.edu.au/student/exams/>
- This includes timetable information, and information on what you can take with you into the exam.
- Also includes policies for examinations and additional/replacement examinations
 - Supplementary exams are usually held shortly after results are announced.
 - Check the above link for timetable and other information

Additional Assessment

- If your final result is 45-49, additional assessment is granted to you.
 - This course is now a second year course. So, marks of 40-44 are not granted an additional assessment.
 - If your mark is capped at 44F due to hurdle, then you may be offered an additional assessment. This is to be decided at school.
- In the case where an additional exam is granted, the better of the primary or additional exam results is used for your final grade, but **the overall result for the course is capped at 50P**.
- You must make yourself available during the additional assessment period.

Replacement exams

- Replacement exams will not be granted for normal circumstances. Read the policy at school website:
<https://www.adelaide.edu.au/student/exams/modified-arrangements-for-coursework-assessment/replacement-examinations-and-additional-assessment>
- Students granted a replacement exam are not eligible to sit the primary exam.
- Students who sit the primary exam will not be eligible to apply for a replacement exam unless a major issue arose during the exam.
- Students must make themselves available during the replacement exam period.



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A dark blue-tinted photograph of a large, historic university building with multiple gables and arched windows. In the foreground, several students are walking across a grassy quad, their figures silhouetted against the lighter background.

Academic honesty policies

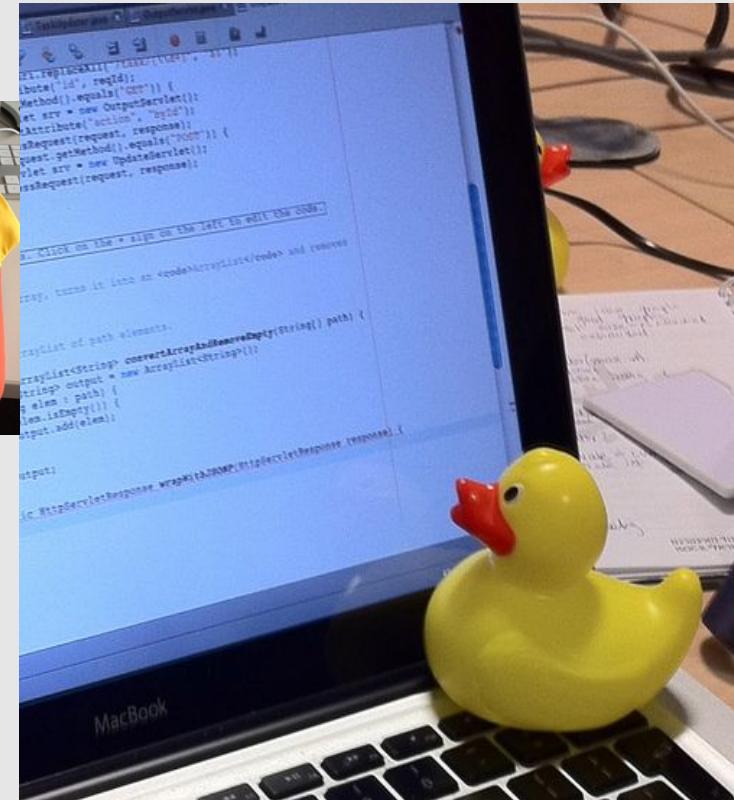
Academic Honesty Policies

- This university has strict policies prohibiting students from presenting other people's work as their own.
- You may not copy work (code or answer to questions) from another student or anywhere else or give another student your work to copy from.
- If caught, you may receive zero for the assignment, zero for the course or be expelled.
- Full policy available at the university webpages:
<https://www.adelaide.edu.au/policies/230/>
- It is very important to do the work yourself. It makes you able to do it in the examination and in the work force.
- We are here to help. Start this week and get help from lecturers, tutors and practical demonstrators.

COMPUTER SCIENCE LEARNING CENTRE - EM 110

(Duck Lounge)

- Meeting Space
 - Whiteboards, movable furniture
- Talks and activities
- Ducks – volunteer tutors willing to assist when they are available and in lounge
 - Check door for languages
 - Look for hats
- Book a one-on-one appointment online:
<https://cs.adelaide.edu.au/users/honours/mciproject/csclc/sharedView/content.php>
- For more info:
<http://cs.adelaide.edu.au/current-students/learning-centre/>





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Practical assignments: Make Submissions

How to Submit your Practicals

- Go to <https://cs.adelaide.edu.au/services/websubmission/>
- There, find the directory name that you need to make in your svn repository for each assignment
- Use svn commands to make the directory
- Upload (or make) your files in your that directory.
- Make sure your files are compiled with university's compiler
- Go back to <https://cs.adelaide.edu.au/services/websubmission/> and submit your work. (**Don't forget this!**) and check feedbacks
- Use secure shell to have external access to university's computing resources:
ssh uss.cs.adelaide.edu.au
- Get help from your practical supervisors

SVN

- You know what exactly the repository address of your assignment needs to be (from web-submission)
- Use svn commands to make that folder
 - svn mkdir --parents <https://version-control.adelaide.edu.au/svn/aXXXXXXX/what/ever/you/want> -m “must have some comments”
- If you don’t have a working copy, check out this folder (or one of the parents) to get a fresh working copy of that
 - svn co <https://version-control.adelaide.edu.au/svn/aXXXXXXX/what/ever/you/want> localFolderAddress

SVN

- If you already have a working copy of one of the parent folders,
 - Either make the assignment folder(s) locally and add them by svn commands
 - cd ExistingParentFolder
 - svn add NewFolderName
 - svn ci –m “comments”
 - Or use svn commands to make that folder(s) on the server
 - Then update your working copy folder. You will see the new directory in that
 - cd ExistingParentFolder
 - svn update
- In General, try not to have more than one working copy. But if you faced a conflict thing during exams do the easiest (I would do a fresh checkout).

Code on the server

- ssh to server each time you want to connect
 - If you have windows, use Putty (a free ssh client) to connect to the server through ssh
- How can you have the files on the server:
 - If your working copy is on the server then you have them there
 - If you have made a submission that needs debugging on the server:
 - Do svn co to create a working copy (make some folder) on the server
 - Or copy your files to the server (not on server's terminal):
 - scp filename aXXXXXX@uss.cs.adelaide.edu.au:/the/folder/you/want
- Go to your working copy folder
- Use vim (or nano or any other terminal-based text editor):
 vim main.cpp
- Compile and run
 - g++ -Wall -O2 *.cpp
 - ./a.out



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