COMP1511:
Course Review and Final Exam Structure

Session 2, 2018

Course Aims and Summary

Aims

- to become proficient in programming using a high level language, C.
- be able to construct C programs to solve problems.

Course Summary

This course introduces students to the basics of programming. Topics covered include:

- fundamental programming concepts (assignments, selections, iterations, functions, recursion, etc.)
- the C programming language and use of a C compiler (c syntax, dcc, valgrind, etc.)
- programming style (important!)
- program design and organisation concepts (ADTs, divide and conquer, multiple files, etc.)
- program testing and debugging (unit testing, black box testing, etc.)

How did you learn?

- Tutorials and Labs - small problems
- Two Assignments - larger problems

We hope by now you can design and develop solutions (C programs) for problems.

Assessment

Component	Weight
Lab Work	10%
Assignments (Assignment-1 : 12%, Assignment-2 : 13%)	25%
Practical Lab Exams during week-05 (5%) and week-10 (10%)	15%
Final Exam (**everything** - exam period)	50%

Exam Hurdle Requirements

COMP1511 has **two hurdle requirements** on the final exam.

Hurdle Requirement #1: on the final exam you must solve a task by writing a program that uses an array.

- The final exam will contain multiple questions (clearly marked) which if answered successfully will meet this hurdle requirement.
- Answering any one of these questions will meet this hurdle requirements.

Hurdle Requirement #2: on the final exam you must solve a task by writing a program that uses a linked list.

- The final exam will contain multiple questions (clearly marked) which if answered successfully meet this hurdle requirement.
- Answering any one of these questions will meet this hurdle requirements.

Exam Hurdle Requirements (cont.)

You **cannot** pass COMP1511 unless you achieve both the above hurdles.

However you will be offered an additional chance to pass the hurdles in the supplementary exam, if you achieve a mark of 50+ but do not pass both hurdles.

Lab Marks

- You can miss 1 lab without affecting your mark.
- Total lab marks will be capped to 10 marks (that is 10% of the final marks).

Final Exam (50% of final mark)

- Final exam held in **2 sessions** on the exam date in CSE labs
- Based on your preference and availability, you will be allocate one of the two sessions.
- Allocations **will be posted** on the class webpage.
- **It is your responsibility to check you allocation time/location.**
- If you have any problems, send an email to cs1511@cse.unsw.edu.au

- **3 hours closed book** exam - no materials allowed.
- You will be able to use an attendance sheet for rough work
- Exam has **2 parts** - **do both of them**
- Exact format (skeleton exam) will be released in Week-13 Lab.

Revision

Your revision should include :

- all **tutorial** questions
- all standard **lab** exercises
- all **examples** discussed in the **lectures**
- **practice questions** available (in week-13) on the class webpage

Exam Part 1

Must be completed during **first 30 minutes** of 3 hour exam. No use of computer allowed during this part except to enter answers into application and view online documentation, You **cannot run terminal** or dcc or gcc or clang or ....

- Probably about 15 questions
- Some questions will ask you to read code and indicate what it does.
- Questions will be short answer or multiple choice
- Practice exam questions (available in week-13) offer good guide to what to expect (but harder)

Exam - Part 2

- 7-8 programming questions.
- Programming questions will be similar to the questions you had in your two practical exams during the session.

- Most or all will have autotests - passing autotest does **not** guarantee marks. Do your own testing.
- It is not sufficient to match any supplied examples!
- You must use C to answer the question.

- Can read questions in first 35 minutes.
- Cannot run editor/dcc in first 35 minutes.

Exam - Part 2 - Questions 1-2

Question 1-2 will be easier questions.

- create a simple C program
- declare and use **int** & **double** variables
- use **scanf** to input ints or double
- use **printf** to output ints or double
- write **if** statements
- write **loops**, including nested loops
- access **command line arguments** and convert to int or double
- use **arrays** to store ints/doubles

The above are suggestions only, you may have questions from the topics not listed above!

Question 3-4

You need to be able to

- use **fgets** to read lines & **fgetc** to read chars
- **read until end-of-input** using scanf, fgets, fgetc
- use **arrays to store strings**
- **manipulate** strings
- do computations on **linked lists**

The above are suggestions only, you may have questions from the topics not listed above!

Question 5-6

You need to be able to

- malloc
- change strings
- change linked lists
- function - passing by reference and value
- operate on two linked lists

The above are suggestions only, you may have questions from the topics not listed above!

Question 7+

- Difficult questions for HD students.
- Complex programming using any of the features covered in course.

Reminder: Hurdle Requirements

To pass the course

- solve problem using **arrays** in the final exam
- solve problem using **linked-lists** in the final exam
- There will be **at least two questions** for each hurdle requirement
- **At least one** of the question for each hurdle will be earlier in the exam **among easier** questions
- **Good strategy** - to do get hurdles out of the way

Exam Part 2 - Marking

- Please follow the input/output **format** shown **exactly** and make your program **behave exactly** as **specified**.
- If your solution is incorrect/incomplete, you will not be awarded full marks, Even if you pass some/all automarking tests.
- **No marks** awarded for **style or comments**. However, use decent formatting so the marker (and you) can read the program. Comments only necessary if you want to tell the marker something.
- **No marks** will given unless an answer contains a substantial part of a solution (30+%).
- **No marks** just for starting a question and writing some C

Exam - Past Papers

- No past papers are available.
- **No past exam offers a suitable guide.**

Special Consideration

- By attending the exam, you are saying ”I am well enough to sit it”.
- If you really are sick, stay home and apply for Special Consideration.
- Applications for Special Consideration from people who sat the exam will be ignored.
- If you become ill during the exam, ask the supervisor to contact lecturers and then talk to lecturers.

Supplementary Assessment

- Students will be offered a supplementary exam if they miss the original exam due to (documented) illness or misadventure.
- Also automatic supp if your mark is 45-49 and have attended 8+ labs, good performance in the practical exams during the session and reasonable attempts on assignments.
- Also automatic supp if your mark is 50+ but you fail a hurdle.
- Your responsibility to be available for the supplementary exam - **no alternative!**

Supplementary Exam

- Similar format to final exam (no skeleton released).
- Your responsibility to be available for the supplementary exam - **no alternative!**
- The Supplementary exam will be scheduled by the central examination unit, during the supplementary exam week. Please check possible dates from the Student Office.
- There is **no alternative** to the supplementary exam - if you miss it your grade will be FL.
- **Don't email** me **asking** to have the supplementary at **another time**.
- If you think you might be offered supplementary assessment, make sure you are available that week.
- Supplementary assessment offers will be sent by email.

MyExperience survey

- We want to know what you think of the course
  - Good/bad/more of this/less of that/what can be done better
- Please complete the MyExperience survey

COMP1511 Tutoring next Term!

- If you are interested and score well in this course, you should apply for COMP1511 tutoring opportunities in 2019!
- You can register your interest at/before the start of the first term in 2019.
- You will receive an email regarding this.

Parting messages

- **Good Luck** in the final exam.
- I know many of you have worked **very hard**.
- I hope you have been rewarded with an understanding of computers & programming that will help you do **interesting and important things in future**.
- Computing and programming are very useful in solving many **real world problems**.
- Learning programming is like learning a **new language**. If you **practice**, you will get better.
- **Explore and learn more** if you can – this world wants people with multiple skills and a passion to aim high!