

Lecture 11

Semester 1 Revision

COMP26120

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Headlines

January Exam is 1.5 hours (90 minutes)

There will be two questions, you must answer both

C programming is not examinable

The two main topics this semester have been

- Complexity Analysis and Divide-and-Conquer [3 lectures]
- Data Structures (Trees and Hashing) [3 lectures]

Reminder: Always read the question and take note of the marks available.

Reminder: Course Assessment

Coursework (50%):

- 25% each semester
- In each semester
 - 20% from coding exercises
 - 5% from 3 online quizzes (see website for when)
 - Quizzes provide early feedback on conceptual issues

Exam (50%):

- 15% first semester, 35% second semester
- Material (general concepts) covered in labs is **examinable**
- Note: new staff means exams likely to be a little different in style

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Exam Structure

In January the exam will be 1.5 hours (in June it will be 2 hours).

There are two questions. Each question is worth 20 marks.

You should answer all questions.

The two questions should be answered in **separate** answer books.

Warning 1

This course unit is rather different from others. It is important that you take the following into account:

- You will be expected to read a considerable amount of material outside the lectures - this includes the course textbook and other material too.
- Lectures will give some guidance about course content and topics, laboratory exercises, etc., but much of the material of the course unit is not lectured!

C Programming is assessed in labs only.

Complexity Analysis and Divide-and-Conquer

- Divide and Conquer paradigm
- Sorting Algorithms
- Algorithmic Complexity
- Sums and Integrals
- Proof by Induction

Data Structures

- Binary trees
- AVL trees
- Hashing structures

Relation to Previous Papers

Computing the complexity of recursive programs (and the required mathematics) is included in this year's syllabus and does not appear in previous papers. This topic took a reasonable amount of your lectures so you may expect a reasonable coverage in the exam.

With respect to past papers:

- We have moved data structure material from semester 2 to semester 1
- Relevant to this semester would be (e.g.) question 3 of paper 2 from 2015-2017 and question 4 from paper 2 in 2015
- Some parts of other questions may be relevant - you can use your knowledge of the relevant topics from this semester to make a judgement

Summary

You should answer all questions in the exam.

C Programming is assessed in labs only.

Good luck!