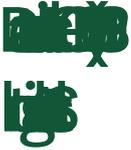


School of Engineering and Computer Science

Te Kura Mātai Pūkaha, Pūrorohiko



Prescription

This course focuses on the techniques for designing, building and analysing computer programs that deal with large collections of data. The course addresses techniques for programming with collections of data, and the data structures and algorithms needed to implement these collections. The course expands programming skills and provides an understanding of the principles of data abstraction, algorithm design, and the analysis of algorithms fundamental to computer science.

Course learning objectives

Students who pass this course will be able to:

1. read and write programs using standard collections (sets, lists, bags, stacks, queues, priority queues, maps)
2. read and write programs using linked data structures, particularly tree structures
3. read and write programs using recursion
4. understand ideas of algorithm complexity, do approximate analysis of simple programs with collections, and make efficient design decisions
5. recognise, understand and use a selection of basic algorithms

Withdrawal from Course

Withdrawal dates and process:

<https://www.victoria.ac.nz/students/study/course-additions-withdrawals>

Lecturers

Karsten Lundqvist (Coordinator)

karsten.lundqvist@vuw.ac.nz 04 4635233 ext 8018

252 Cotton, Kelburn

Peter Andrae

Peter.Andrae@vuw.ac.nz 04 4635834

336 Cotton, Kelburn

Teaching Format

During the trimester there will be three lectures and one tutorial per week. There will also be helpdesk sessions.

The goal of the tutorials is for students to engage with the content of the course in an interactive group environment. Their format may vary, but we intend for them all to involve some time working through problems and issues in small groups, with the help of a tutor.

There are no fixed laboratory sessions for COMP103, and you are able to use computers in a variety of places to work on the assignments. Apart from times when particular labs are booked for exclusive use by another course, you are free to use computers in any of the ECS computer laboratories.

We will run "Help Desk" sessions for students who want to discuss their assignment work in some detail with an experienced tutor.

Students will be able to ask for help from tutors on problems with code, via an online help system.

Student feedback

Student feedback on University courses may be found at:
http://www.cad.vuw.ac.nz/feedback/feedback_display.php

Dates (trimester, teaching & break dates)

- Teaching: 08 July 2019 - 13 October 2019
- Break: 19 August 2019 - 01 September 2019
- Study period: 14 October 2019 - 17 October 2019
- Exam period: 18 October 2019 - 09 November 2019

Class Times and Room Numbers

08 July 2019 - 18 August 2019

- **Monday** 11:00 - 11:50 – LT303, New Kirk, Kelburn
- **Tuesday** 11:00 - 11:50 – LT303, New Kirk, Kelburn
- **Friday** 11:00 - 11:50 – LT303, New Kirk, Kelburn

02 September 2019 - 13 October 2019

- **Monday** 11:00 - 11:50 – LT303, New Kirk, Kelburn
- **Tuesday** 11:00 - 11:50 – LT303, New Kirk, Kelburn
- **Friday** 11:00 - 11:50 – LT303, New Kirk, Kelburn

Other Classes

There will be a one hour tutorial per week. You must sign up for one of the tutorial streams. There will also be optional evening workshops in which you can work on assignments with some tutor support.

Set Texts and Recommended Readings

Required

The optional textbook for COMP 103 is:

- Lewis, DePasquale and Chase, "*Java Foundations: Introduction to Program Design and Data Structures*", preferably 4th edition, though earlier editions will still be helpful.

Mandatory Course Requirements

In addition to achieving an overall pass mark of at least 50%, students must:

- submit reasonable attempts for at least **5 out of the 6 assignments** (or obtain an exemption from the Course Coordinator).

If you believe that exceptional circumstances may prevent you from meeting the mandatory course requirements, contact the Course Coordinator for advice as soon as possible.

Assessment

Your grade for COMP 103 will be based on the tutorial problems, the assignments, a test, and a final exam.

The test will be held in the evening of the week 2-6 September, probably on Tuesday 3.

The test mark will be boosted to the exam mark, if the exam mark is higher.

Assessment Item	Due Date or Test Date	CLO(s)	Percentage
10 Tutorial problems (group mark)	At Tutorial	CLO: 1,2,3,4,5	5%
Assignment 1	Tues of week 3	CLO: 1	4%
Assignments 2-3 (4% each)	Tues of week 5 and 2nd week of break	CLO: 1,3,4,5	8%
Assignments 4-6 (4% each)	Tues of week 9, Tues of week 11, day before Study Week	CLO: 1,2,3,4,5	12%
Test (50 minutes)	3 Sept	CLO: 1,3,4,5	18%
Final Examination (2 hours)	TBC	CLO: 1,2,3,4,5	53%

Penalties

LATE DAY POLICY (for Assignments). Each student will have ONE LATE DAY which you may choose to use for any assignment or assignments during the course. Please note that these 24 hours are for the whole course, not for each assignment. So you have on average 2.4 late hours for each assignment. There will be no penalty applied for these hours. You do not need to apply for them, instead any late hours you have left will be automatically applied to assignments that you submit late. You get zero marks for late assignments when you run out of these late hours, unless you have made arrangements on the basis of exceptional circumstances with the course coordinator.

Extensions

All students have an automatic 24 hours of extension that they can distribute over the six assignments. Extensions for assignments beyond the automatic late hours will only be granted on the basis of exceptional circumstances, and require approval by the lecturer.

Submission & Return

Submission of assignments must be done via the ECS online submission system, accessible through the

course web pages: https://ecs.victoria.ac.nz/Courses/COMP103_2019T2/Assignments. Marks and comments will be returned through the ECS marking system, also available through the course web pages.

Group Work

The tutorial problems will be done in groups. Assignments MUST be done individually

Workload

COMP 103 is a 15 point course, and you should plan to spend an average of 10 hours per week on it. A plausible breakdown for these hours would be:

- Lectures and tutorials: 4
- Reading/revision: 1
- Assignments: 5

Teaching Plan

See https://ecs.victoria.ac.nz/Courses/COMP103_2019T2/Schedule

Communication of Additional Information

All online material for this course can be accessed at https://ecs.victoria.ac.nz/Courses/COMP103_2019T2

Links to General Course Information

- Academic Integrity and Plagiarism: <https://www.victoria.ac.nz/students/study/exams/integrity-plagiarism>
- Academic Progress: <https://www.victoria.ac.nz/students/study/progress/academic-progress> (including restrictions and non-engagement)
- Dates and deadlines: <https://www.victoria.ac.nz/students/study/dates>
- Grades: <https://www.victoria.ac.nz/students/study/progress/grades>
- Special passes: Refer to the Assessment Handbook, at <https://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>
- Statutes and policies, e.g. Student Conduct Statute: <https://www.victoria.ac.nz/about/governance/strategy>
- Student support: <https://www.victoria.ac.nz/students/support>
- Students with disabilities: https://www.victoria.ac.nz/st_services/disability/
- Student Charter: <https://www.victoria.ac.nz/learning-teaching/learning-partnerships/student-charter>
- Terms and Conditions: <https://www.victoria.ac.nz/study/apply-enrol/terms-conditions/student-contract>
- Turnitin: <http://www.cad.vuw.ac.nz/wiki/index.php/Turnitin>
- University structure: <https://www.victoria.ac.nz/about/governance/structure>
- VUWSA: <http://www.vuwsa.org.nz>

Offering CRN: [945](#)

Points: 15

Prerequisites: COMP 102 or 112

Duration: 08 July 2019 - 10 November 2019

Starts: Trimester 2

Campus: Kelburn

