

COMP304 (2017) - Programming Languages

Prescription

This course addresses the principles of programming language design and use. It introduces different models of computation and the programming languages based on them, particularly functional programming and logic programming. It then examines a range of underlying issues in programming languages, such as semantics of programming languages, type systems, and control in programming languages.

Course learning objectives

Students who pass this course will be able to:

1. understand and describe the underlying principles of a variety of programming languages.
2. read, design and write programs in a functional programming language.
3. read, design and write programs in a logic programming language.
4. understand the various advantages and disadvantages of the imperative, functional, and logic paradigms.

Course content

COMP 304 will broaden your knowledge about programming languages by introducing you to functional and logic programming. These programming paradigms are very different from the imperative underpinning of the programming languages discussed at levels 100 and 200. Understanding these paradigms and their associated programming techniques and idiomatic usages will not only put you into a better position to evaluate language designs but also will allow you to use a number of these techniques in conventional programming languages. COMP 304 also looks at the history of programming languages, enabling you to place the discussed programming languages into their respective context and thus obtain a broader perspective.

Withdrawal from Course

Withdrawal dates and process:

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

Lecturers



Lindsay Groves (Coordinator)

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Michael Homer

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115 Easterfield, Kelburn

Teaching Format

During the trimester you should plan to spend an average of at least 10 hours per week (Lectures, Readings and Assignments).

Dates (trimester, teaching & break dates)

- Teaching: 17 July 2017 - 20 October 2017
- Break: 28 August 2017 - 08 September 2017
- Study period: 24 October 2017 - 26 October 2017
- Exam period: 27 October 2017 - 18 November 2017

Class Times and Room Numbers

17 July 2017 - 27 August 2017

- **Tuesday** 10:00 - 10:50 – 306, 77 Fairlie Tce, Kelburn
- **Thursday** 10:00 - 10:50 – 306, 77 Fairlie Tce, Kelburn
- **Friday** 10:00 - 10:50 – 306, 77 Fairlie Tce, Kelburn

11 September 2017 - 22 October 2017

- **Tuesday** 10:00 - 10:50 – 306, 77 Fairlie Tce, Kelburn
- **Thursday** 10:00 - 10:50 – 306, 77 Fairlie Tce, Kelburn
- **Friday** 10:00 - 10:50 – 306, 77 Fairlie Tce, Kelburn

Set Texts and Recommended Readings

Required

There are no required texts for this offering.

Mandatory Course Requirements

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

- To pass COMP 304 you must meet the mandatory requirements and gain at least an average of C- over all the assessment.

Your grade for COMP 304 will be determined based on the following assessment weightings:

Marked Assignment - 30%

Final Examination - 70%

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

This course will be internally and externally assessed through assignments and final examination.

Workload

In order to maintain satisfactory progress in COMP 304, you should plan to spend an average of at least 10 hours per week on this paper. An approximate breakdown for these hours is:

Lectures, tutorials and laboratories - 3 hrs
Readings, revision and preparation - 2 hours
Assignments - 5 hours

Teaching Plan

Links to General Course Information

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

Offering CRN: [964](#)

Points: 15

Prerequisites: COMP 261 or NWEN 241 or SWEN 221; SWEN 224

Duration: 17 July 2017 - 19 November 2017

Starts: Trimester 2

Campus: Kelburn