

School of Engineering and Computer Science

Te Kura Mātai Pūkaha, Pūrorohiko



Prescription

This course applies a range of advanced contemporary programming languages in current use, covering practical programming skills in the languages as well as their niches and design paradigms. The course will cover languages of present industrial interest, along with design trends of future languages.

Course learning objectives

Students who pass this course should be able to:

1. Program in a range of advanced contemporary programming languages with industrial relevance.
2. Select appropriate implementation languages for a program based on their properties, and justify the contributing factors and trade-offs involved.
3. Understand the relationship between different programming language paradigms, features, and tooling.

Course content

2022: The course is primarily offered in-person, but there will be remote alternatives for all the components of the course.

Students taking this course remotely must have access to a computer adequate to support the programming required by the course: almost any modern Windows, Macintosh, or Unix laptop or desktop computer will be sufficient, but an Android or iPadOS tablet will not.

All lectures will be recorded for remote viewing and all assessment is by take-home programming assignment, with no in-person assessment.

Withdrawal from Course

Withdrawal dates and process:

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

Lecturers

Dr Michael Homer (Coordinator)

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CO 248 Cotton Building (All Blocks), Gate 7, Kelburn Parade, Kelburn

Julian Mackay

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Dr Marco Servetto

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CO 258 Cotton Building (All Blocks), Gate 7, Kelburn Parade, Kelburn

Teaching Format

This course will be offered in-person and online. For students in Wellington, there will be a combination of in-person components and web/internet based resources. It will also be possible to take the course entirely online for those who cannot attend on campus, with all the components provided in-person also made available online.

2 hours of lectures per week. Three languages will be covered in six-lecture blocks each, with additional topics in between.

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: 28 February 2022 - 03 June 2022
- Break: 11 April 2022 - 24 April 2022
- Study period: 06 June 2022 - 09 June 2022
- Exam period: 10 June 2022 - 25 June 2022

Class Times and Room Numbers

28 February 2022 - 10 April 2022

- **Tuesday** 10:00 - 10:50 – 201, Easterfield, Kelburn
- **Thursday** 10:00 - 10:50 – 201, Easterfield, Kelburn

25 April 2022 - 05 June 2022

- **Tuesday** 10:00 - 10:50 – 201, Easterfield, Kelburn
- **Thursday** 10:00 - 10:50 – 201, Easterfield, Kelburn

Set Texts and Recommended Readings

Required

There are no required texts for this offering.

Mandatory Course Requirements

There are no mandatory course requirements for this course.

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

The course will be internally assessed by practical projects, including one item due in the end-of-term assessment period. There are no tests or exams.

Assessment Item	Due Date or Test Date	CLO(s)	Percentage
3x Implementation project and written report (equally weighted)	31 March; 17 May; 14 June	CLO: 1,2,3	90%
3x introductory programming mini-projects (equally weighted)	15 March; 26 April; 26 May	CLO: 1,3	10%

Penalties

You will have 9 "slip days" that are managed by the ECS submission system. You do not need to apply for these — any slip days you have left will be automatically applied to assignments that you submit late. Marks for assessment items submitted more than three slip days late may be delayed and without feedback.

Extensions

You will have 9 "slip days" that are managed by the ECS submission system. You do not need to apply for these — any slip days you have left will be automatically applied to assignments that you submit late. Marks for assessment items submitted more than three slip days late may be delayed and without feedback.

If you have significant medical or personal issues that may affect your ability to submit an assignment on time, contact the course coordinator or lecturer to discuss an extension. You may need documentation for significant cases.

Submission & Return

All work is submitted through the ECS submission system, accessible through the course web pages. Marks and comments will be returned through the ECS marking system, also available through the course web pages.

The School normally has a goal of returning marks for all assessment items within two weeks of the submission deadline. This year, the course will aim to meet this goal, but we expect that sickness and self-isolation due to Covid will extend the time required to mark some assignments and tests.

Workload

Although the workload will vary from week to week, you should expect to spend approximately 10–12 hours per week on the course to give a total of 150 hours study time for the course.

Teaching Plan

See https://ecs.wgtn.ac.nz/Courses/SWEN431_2022T1/LectureSchedule

Communication of Additional Information

All online material for this course can be accessed at https://ecs.wgtn.ac.nz/Courses/SWEN431_2022T1/

Links to General Course Information

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

Offering CRN: [18669](#)

Points: 15

Prerequisites: 30 300-level COMP or SWEN points

Restrictions: COMP 432

Duration: 28 February 2022 - 26 June 2022

Starts: Trimester 1

Campus: Kelburn