

# SWEN423 (2017) - Object-Oriented Paradigms

## Prescription

Object-orientation is the basis for many approaches to programming, systems, languages and applications. This course discusses the design principles of object-orientation and studies advanced topics in system design, programming language and development process.

## Course learning objectives

Students who pass this course should be able to:

1. Describe what it might mean to label something with the phrase object-oriented.
2. Describe common object-oriented analysis and design techniques.
3. Understand and describe concrete object-oriented designs.
4. Compare different object-oriented programming languages.
5. Discuss, describe, and evaluate the applicability of those techniques, designs, and languages.
6. Have a good background for beginning research on a topic in this area.

## Course content

The popularity of the object-oriented term has grown so much that the phrase object-oriented has become something of a catch-phrase for all that is good in Computing, expanding out of the programming language field and influencing (as an example) software engineering and databases.

This course attempts to obtain a deep understanding of object oriented concepts and to examine various application of object oriented methodologies. We will read and discuss papers about different topics within OO, including inheritance and method dispatch techniques, reasoning and typing techniques, frameworks and library design and language evolution.

## Withdrawal from Course

Withdrawal dates and process:

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

## Lecturers



**James Noble** (Coordinator)

James.Noble@vuw.ac.nz

04 4636736

234 Cotton, Kelburn

## Teaching Format

During the trimester there will be two lectures per week. There are no labs, tutorials, or help desks, however the forum is a fundamental tool used in this course to provide help and clarifications.

## 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 – 104, Alan MacDiarmid Building, Kelburn
- **Thursday** 10:00 - 10:50 – 104, Alan MacDiarmid Building, Kelburn

### 11 September 2017 - 22 October 2017

- **Tuesday** 10:00 - 10:50 – 104, Alan MacDiarmid Building, Kelburn
- **Thursday** 10:00 - 10:50 – 104, Alan MacDiarmid Building, Kelburn

## Set Texts and Recommended Readings

### Required

Lecture readings will be accessible via the course webpage or/and Tallis Aspire.

## Mandatory Course Requirements

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

- *80% of Paper Summaries satisfactory and submitted on time*
- *Achieve at least a **D** grade on the final exam*

*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 assessed both internally and externally

Assignment 1	Mon 21 Aug 10:00	CLO: 1,2,3,4,5,6	20%
Assignment 2	Mon 9 Oct 10:00	CLO: 1,2,3,4,5,6	20%
Final Exam (3 hours)	tba in exam period	CLO: 1,2,3,4,5,6	60%

## Extensions

Extensions may be granted by the course coordinator in exceptional circumstances.

## Submission & Return

Work will be submitted via ECS's submission system and returned via the ECS/MCS school office.

## Marking Criteria

Assignments will be marked according to the criteria on the course web page - [https://ecs.victoria.ac.nz/Courses/SWEN423\\_2017T2/Assignments](https://ecs.victoria.ac.nz/Courses/SWEN423_2017T2/Assignments)

## Group Work

SWEN423 does not incorporate group work.

## Peer Assessment

SWEN423 does not incorporate peer assessment.

## Workload

In order to maintain satisfactory progress in SWEN 423, you should plan to spend an average of 10 hours per week on this paper. A plausible and approximate breakdown for these hours would be:

- Lectures: 2 hours per week
- Readings: 3 hours per lecture
- Assignments: 2 hours per week

## Teaching Plan

## 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/](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:** [18663](#)

**Points:** 15

**Prerequisites:** COMP 304 or SWEN 301; 15 further 300-level COMP, NWEN, SWEN pts;

**Restrictions:** COMP 462

**Duration:** 17 July 2017 - 19 November 2017

**Starts:** Trimester 2

**Campus:** Kelburn