

SWEN424 (2017) - Model-Driven Development

Prescription

An introduction to model-driven development - the modern approach to large scale software system development along with an introduction to the core concepts of model-driven development, the course will address the foundations and principles for supporting infrastructures. This includes an in-depth discussion of 'metamodelling' and a critique of existing modelling techniques. Students will get hands-on experience with using a meta-case tool.

Course learning objectives

Students who pass this course should be able to:

1. Have an understanding of model-driven development
2. Understand the advantages and disadvantages of domain-specific modelling approaches.
3. Understand the potential and implementation challenges arising from description hierarchies (meta-level hierarchies).
4. Differentiate between super and meta classes
5. To use metamodelling as a language definition tool and as a tool for modeling domains.
6. Use the metamodeling principles discussed in a number of contexts (e.g. XML, UML Definition, Semantic Web).

Course content

Model-driven development is a vital ingredient of modern software engineering. Along with an introduction to the concepts of model-driven development and domain-specific modelling, SWEN 424 addresses the foundations and principles for supporting infrastructures. This includes an in-depth discussion of 'metamodelling' and a critique of existing modelling techniques. Students will get hands-on experience with using a meta-case tool.

Withdrawal from Course

Withdrawal dates and process:

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

Lecturers

Thomas Kuehne (Coordinator)

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233 Cotton, Kelburn

Teaching Format

During the trimester there will be two lectures per week and other slots will be by announcement only.

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

- **Monday** 15:10 - 16:00 – 120, Easterfield, Kelburn
- **Wednesday** 15:10 - 16:00 – 120, Easterfield, Kelburn
- **Thursday** 15:10 - 16:00 – 120, Easterfield, Kelburn

11 September 2017 - 22 October 2017

- **Monday** 15:10 - 16:00 – 120, Easterfield, Kelburn
- **Wednesday** 15:10 - 16:00 – 120, Easterfield, Kelburn
- **Thursday** 15:10 - 16:00 – 120, 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

This course will be internally and externally assessed through the following:

- Project
- Final Examination

Project	30/09/2017	CLO: 1,2,3,4,5,6	35%
Examination (2 hours)		CLO: 1,2,3,4,5,6	65%

Workload

In order to maintain satisfactory progress in SWEN 424, students should plan to spend an average of at least 10 hours per week on this paper. An approximate breakdown for these hours is as follows:

Lectures - 2 hours

Reading, revision and preparation - 2 hours

Research Project - 6 hours

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/
- 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: [18664](#)

Points: 15

Prerequisites: 30 300-level pts from (COMP, NWEN, SWEN);

Restrictions: COMP 471 in 2007-09

Duration: 17 July 2017 - 19 November 2017

Starts: Trimester 2

Campus: Kelburn