



Prescription

This course provides a general introduction to the fundamental technical concepts needed to understand the design and engineering of electronic, mechatronic, networked and software systems. Experience is gained in basic engineering practice, with assembly and testing of basic hardware, software and networked systems, and construction of a personal computer.

Course learning objectives

Students who pass this course will be able to:

1. Understand the fundamental principles underlying Engineering, especially electronic, mechatronic, networked and software systems (BE graduate attributes 3(a)).
2. Work within a team, including breaking up and allocating tasks, managing a team, and working with other people to achieve a defined task (BE graduate attributes 2(a), 2(b) and 3(d)).
3. Communicate through explaining what they have done in coursework and reasons for it with their peers and others (BE graduate attribute 2(b)).
4. Understand the role of engineers and their responsibility to society (BE graduate attribute 1(a)).
5. Be creative and able to apply critical thinking through the design, implementation and testing of systems to solve real-world problems (BE graduate 3(b)).

Course content

It is intended to give students experience in basic engineering practice, through gaining understanding of basic software and hardware systems and applying this knowledge to complete a project which includes all aspects of these technologies.

Withdrawal from Course

Withdrawal dates and process:

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

Lecturers

Robin Dykstra (Coordinator)

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Alan Brent

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413 Alan MacDiarmid Building, Kelburn

Howard Lukefahr

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261 Cotton, Kelburn
Dr. Howard Lukefahr
Arthur Roberts

Teaching Format

During the trimester there will be three lectures a lab, and a tutorial per week.

Student feedback

Feedback from previous students who have taken ENGR 101 is available here:
http://www.cad.vuw.ac.nz/feedback/feedback_display.php

Dates (trimester, teaching & break dates)

- Teaching: 05 March 2018 - 08 June 2018
- Break: 23 April 2018 - 27 April 2018
- Study period: 11 June 2018 - 14 June 2018
- Exam period: 15 June 2018 - 04 July 2018

Class Times and Room Numbers

05 March 2018 - 25 March 2018

- **Friday** 13:10 - 14:00 – MT228, Student Union, Kelburn

05 March 2018 - 01 April 2018

- **Monday** 13:10 - 14:00 – MT228, Student Union, Kelburn
- **Tuesday** 13:10 - 14:00 – LT205, Hugh Mackenzie, Kelburn

02 April 2018 - 22 April 2018

- **Friday** 13:10 - 14:00 – MT228, Student Union, Kelburn

09 April 2018 - 22 April 2018

- **Monday** 13:10 - 14:00 – MT228, Student Union, Kelburn
- **Tuesday** 13:10 - 14:00 – LT205, Hugh Mackenzie, Kelburn

30 April 2018 - 10 June 2018

- **Monday** 13:10 - 14:00 – MT228, Student Union, Kelburn
- **Tuesday** 13:10 - 14:00 – LT205, Hugh Mackenzie, Kelburn
- **Friday** 13:10 - 14:00 – MT228, Student Union, Kelburn

Other Classes

Weekly lab in CO145 (2 hours)
Weekly tutorial in CO145 (1 hour)

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 assessed through five assignments, autonomous vehicle challenge (group), two in-term tests and tutorial participation.

Terms Test #1	Week 7	CLO: 1,4,5	20%
Terms Test #2	Week 12	CLO: 1,4,5	20%
Autonomous Vehicle Challenge (Group and Individual assessments)		CLO: 1,2,3,5	25%
Assignments (5% each)		CLO: 1	25%
Tutorial Exercises		CLO: 1,3,4,5	10%

Penalties

Work submitted late will be subject to a penalty of 10% per day for 4 days.
No work will be accepted after this unless previously arranged with the course organiser.

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.

Group Work

The autonomous vehicle challenge contains a group work component based on the robot's performance and a project plan.

Workload

In order to maintain satisfactory progress in ENGR 101, you should plan to spend 10 hours per week on this paper.
A plausible and approximate breakdown for these hours would be:

Lectures: 3 hours

Laboratories: 2 hours

Tutorials: 1 hour

Writing lab reports/assignments: 2 hours

Reading, review, preparation: 2 hours

Teaching Plan

Full details and schedule available at

https://ecs.victoria.ac.nz/Courses/ENGR101_2018T1/LectureSchedule

Communication of Additional Information

All communication about the course will be provided through the course website:

https://ecs.victoria.ac.nz/Courses/ENGR101_2018T1/

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: [15243](#)

Points: 15

Prerequisites: enrolment in BE(Hons)

Duration: 05 March 2018 - 04 July 2018

Starts: Trimester 1

Campus: Kelburn