

Unit Outline

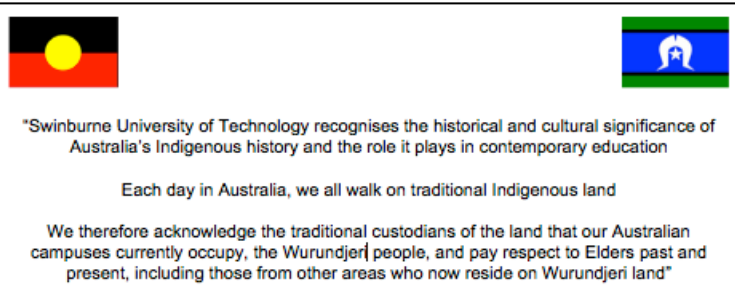
COS60011

Technology Design Project

Semester 2 2023

Please read this Unit Outline carefully. It includes:

- PART A** Unit summary
- PART B** Your Unit in more detail
- PART C** Further information



PART A: Unit Summary

Unit Code(s)	COS60011
Unit Title	Technology Design Project
Duration	One semester or equivalent
Total Contact Hours	48 hours
Requisites:	
Pre-requisites	Nil
Co-requisites	Nil
Concurrent pre-requisites	Nil
Anti-requisites	Nil
Assumed knowledge	Nil
Credit Points	12.5 credit points
Campus/Location	Hawthorn
Mode of Delivery	Face to Face
Assessment Summary	Design Concept (Group) 20% Project (Group) 30% Project Report (Individual) 40% Research Report (Individual) 10%

Aims

This is a project-based unit in which students work in teams to design a solution to an industry driven challenge. The project will have a substantial emphasis on design. Teams of students will have a staff member as a 'facilitator' whilst working on this project. Student teams will be allowed to select a project from a range of industry oriented design projects aligned to their chosen specialisation. This unit forms part of the student specialisation selection if their course undertaken has a choice of specialisation.

Unit Learning Outcomes

Students who successfully complete this Unit should be able to:

- 1 Apply a systematic approach to technology design
- 2 Apply knowledge of design fundamentals to technology challenges
- 3 Find, organise, and evaluate information on a range of topics related to technology design
- 4 Use technology to develop and present design solutions
- 5 Demonstrate reflective practice, and use self and peer evaluation
- 6 Demonstrate awareness of social and cultural perspectives that impact on learning and working in a team

Graduate Attributes

This unit may contribute to the development of the following Swinburne Graduate Attributes:

- Communication skills
- Teamwork skills
- Digital literacies

Content

- Technical content in the selected specialisation
- Technology design
- Design thinking for technology solutions
- Computer-aided design (CAD) software
- Virtual design technology
- Social and cultural technology design perspectives
- Team dynamics
- Technology project management
- Professional technical writing

PART B: Your Unit in more detail

Unit Improvements

Feedback provided by previous students through the Student Survey has resulted in improvements that have been made to this unit. Recent improvements include:

- Detailed Seminars
- Feedback on time for questions related to the unit

Unit Teaching Staff

Name	Role	Room	Phone	Email	Consultation Times
Jaideep Chandran	Unit Convenor	EN606C	9214 8840	jchandran@swin.edu.au	

Learning and Teaching Structure

Activity	Total Hours	Hours per Week	Teaching Period Weeks
Seminars	12 hours	1 hours	Weeks 1 to 12
Workshop	24 hours	2hour	Weeks 2 to 12
Facilitator Meeting	12 hours	1 hours	Week 1 to 12

Week by Week Schedule

Week	Teaching and Learning Activity	Student Task or Assessment
1	Introduction to the Unit and formation of student teams	<u>Student Tasks</u> Seminar: Team Dynamics Facilitator meeting. <u>Assessment</u> None.
2	Introduction to the Project and identification of project learning issues	Student Tasks Seminar: Technical Topic 1 Facilitator meeting. <u>Assessment</u> None.
3	Research of project learning issues	<u>Student Tasks</u> Seminar: Technical Topic 2 Facilitator meeting Individual research task. <u>Assessment</u> None.
4	Research of project learning issues	<u>Student Tasks</u> Seminar: Technical Topic 3 Facilitator meeting Individual research task. <u>Assessment</u>

		Individual Research Report.
5	Development and Design	<u>Student Tasks</u> Seminar: Technical Topic 4 Facilitator meeting Workshop <u>Assessment</u> None.
6	Development and Design	<u>Student Tasks</u> Seminar: Industry Guest Facilitator meeting Workshop <u>Assessment</u> Team Design Concept.
7	Modelling, and simulation or building	<u>Student Tasks</u> Seminar: Industry Guest Facilitator meeting Workshop <u>Assessment</u> None.
8	Modelling, and simulation or building	<u>Student Tasks</u> Seminar: Industry Guest Facilitator meeting Workshop <u>Assessment</u> None.
9	Modelling, and simulation or building	<u>Student Tasks</u> Seminar: Facilitator meeting Workshop <u>Assessment</u> None.
10	Testing and Evaluation	<u>Student Tasks</u> Seminar: Professional Writing Facilitator meeting Workshop <u>Assessment</u> None.
11	Testing and Evaluation	<u>Student Tasks</u> Seminar: Facilitator meeting Workshop <u>Assessment</u>

		Team Project Demonstration/Presentation
12	Product Delivery	<u>Student Tasks</u> Seminar: Facilitator meeting Workshop <u>Assessment</u> Individual Project Report.

Assessment

a) Assessment Overview

Tasks and Details	Individual or Group	Weighting	Unit Learning Outcomes that this assessment task relates to	Assessment Due Date
Individual Research Report	Individual	10%	3	Week 5
Team Design Concept	Team	20%	1, 2	Week 7
Team Project Demonstration/Presentation	Team	30%	4, 6	Week 12
Individual Project Report	Individual	40%	4, 5	Week 14

b) Minimum requirements to pass this Unit

As the minimum requirements of assessment to pass a unit and meet all Unit Learning Outcomes to a minimum standard, a student must achieve:

- An aggregate mark of 50% or more

c) Submission Requirements

Assignments and other assessments are generally submitted online through the Canvas assessment submission system which integrates with the Turnitin plagiarism checking service.

All Portfolio tasks are to be completed and managed within Canvas. Canvas contains information on assessment of the Portfolio components. Deadlines for individual Portfolio Components are managed within Canvas. Assessment tasks forming parts of your Portfolio work is submitted based on automated collection of your work, coupled with discussion with your Project Facilitator. Deadlines for these assessment tasks will be provided by the Project Facilitator.

Please ensure you keep a copy of all assessments that are submitted.

d) Extensions and Late Submission

Late Submissions - Unless an extension has been approved, late submissions will result in a penalty. You will be penalised 10% of your achieved mark for each working day the task is late, up to a maximum of 5 working days. After 5 working days, a zero result will be recorded.

e) Referencing

To avoid plagiarism, you are required to provide a reference whenever you include information from other sources in your work. Further details regarding plagiarism are available in Section C of this document.

Referencing conventions required for this unit are the IEEE Citation Policy, more information at:

<http://www.ieee.org/documents/ieeecitationref.pdf>

Helpful information on referencing can be found at

<http://www.swinburne.edu.au/library/referencing/>

f) Groupwork Guidelines

A group assignment is the collective responsibility of the entire group, and if one member is temporarily unable to contribute, the group should be able to reallocate responsibilities to keep to schedule. In the event of longer-term illness or other serious problems involving a member of group, it is the responsibility of the other members to notify immediately the Unit Convenor or relevant tutor.

Group submissions must be submitted with an Assignment Cover Sheet, signed by all members of the group.

All group members must be satisfied that the work has been correctly submitted. Any penalties for late submission will generally apply to all group members, not just the person who submitted.

Recommended Reading Materials

The Library has a large collection of resource materials, both texts and current journals. Listed below are some references that will provide valuable supplementary information to this unit. It is also recommended that you explore other sources to broaden your understanding.

PART C: FURTHER INFORMATION



For further information on any of these topics, refer to Swinburne's Current Students web page <http://www.swinburne.edu.au/student/>.

Student behaviour and wellbeing

All students are expected to: act with integrity, honesty and fairness; be inclusive, ethical and respectful of others; and appropriately use University resources, information, equipment and facilities. All students are expected to contribute to creating a work and study environment that is safe and free from bullying, violence, discrimination, sexual harassment, vilification and other forms of unacceptable behaviour.

The [Student Charter](#) describes what students can reasonably expect from Swinburne in order to enjoy a quality learning experience. The Charter also sets out what is expected of students with regards to your studies and the way you conduct yourself towards other people and property.

You are expected to familiarise yourself with University regulations and policies and are obliged to abide by these, including the [Student Academic Misconduct Regulations](#), [Student General Misconduct Regulations](#) and the [People, Culture and Integrity Policy](#). Any student found to be in breach of these may be subject to disciplinary processes.

Examples of expected behaviours are:

- conducting yourself in teaching areas in a manner that is professional and not disruptive to others
- following specific safety procedures in Swinburne laboratories, such as wearing appropriate footwear and safety equipment, not acting in a manner which is dangerous or disruptive (e.g. playing computer games), and not bringing in food or drink
- following emergency and evacuation procedures and following instructions given by staff/wardens in an emergency response

Canvas

You should regularly access the Swinburne learning management system, Canvas, which is available via the Current Students webpage or <https://swinburne.instructure.com/>. Canvas is updated regularly with important unit information and communications.

Communication

All communication will be via your Swinburne email address. If you access your email through a provider other than Swinburne, then it is your responsibility to ensure that your Swinburne email is redirected to your private email address.

Academic Integrity

Academic integrity is about taking responsibility for your learning and submitting work that is honestly your own. It means acknowledging the ideas, contributions and work of others; referencing your sources; contributing fairly to group work; and completing tasks, tests and exams without cheating.

Swinburne University uses the Turnitin system, which helps to identify inadequate citations, poor paraphrasing and unoriginal work in assignments that are submitted via Canvas. Your Unit Convenor will provide further details.

Plagiarising, cheating and seeking an unfair advantage with regards to an exam or assessment are all breaches of academic integrity and treated as academic misconduct.

Plagiarism is submitting or presenting someone else's work as though it is your own without full and appropriate acknowledgement of their ideas and work. Examples include:

- using the whole or part of computer program written by another person as your own

- using the whole or part of somebody else's written work in an essay or other assessable work, including material from a book, journal, newspaper article, a website or database, a set of lecture notes, current or past student's work, or any other person's work
- poorly paraphrasing somebody else's work
- using a musical composition or audio, visual, graphic and photographic work created by another
- using realia created by another person, such as objects, artefacts, costumes, models
- submitting assessments that have been developed by another person or service (paid or unpaid), often referred to as contract cheating
- presenting or submitting assignments or other work in conjunction with another person or group of people when that work should be your own independent work. This is regardless of whether or not it is with the knowledge or consent of the other person(s). Swinburne encourages students to talk to staff, fellow students and other people who may be able to contribute to a student's academic work but where an independent assignment is required, the work must be the student's own
- enabling others to plagiarise or cheat, including letting another student copy your work or by giving access to a draft or completed assignment

The penalties for academic misconduct can be severe, ranging from a zero grade for an assessment task through to expulsion from the unit and, in the extreme, exclusion from Swinburne.

Student support

Swinburne offers a range of services and resources to help you complete your studies successfully. Your Unit Convenor or studentHQ can provide information about the study support and other services available for Swinburne students.

Special consideration

If your studies have been adversely affected due to serious and unavoidable circumstances outside of your control (e.g. severe illness or unavoidable obligation), you may be able to apply for special consideration (SPC).

Applications for Special Consideration will be submitted via the SPC online tool normally no later than 5.00pm on the third working day after the submission/sitting date for the relevant assessment component.

Accessibility needs

Sometimes students with a disability, a mental health or medical condition or significant carer responsibilities require reasonable adjustments to enable full access to and participation in education. Your needs can be addressed by Swinburne's AccessAbility Services by negotiating and distributing an 'Education Access Plan'. The plan makes recommendations to university teaching and examination staff. You must notify AccessAbility Services of your disability or condition within one week after the commencement of your unit to allow the University to make reasonable adjustments.

Review of marks

An independent marker reviews all fail grades for major assessment tasks. In addition, a review of assessment is undertaken if your final result is between 45 and 49 or within 2 marks of any grade threshold.

If you are not satisfied with the result of an assessment, you can ask the Unit Convenor to review the result. Your request must be made in writing within 10 working days of receiving the result. The Unit Convenor will review your result to determine if your result is appropriate.

If you are dissatisfied with the outcomes of the review, you can lodge a formal complaint.

Feedback, complaints and suggestions

In the first instance, discuss any issues with your Unit Convenor. If you are dissatisfied with the outcome of the discussion or would prefer not to deal with your Unit Convenor, then you can complete a feedback form. See <https://www.swinburne.edu.au/corporate/feedback/>

Advocacy

Should you require assistance with any academic issues, University statutes, regulations, policies and procedures, you are advised to seek advice from an Independent Advocacy Officer at Swinburne Student Life.

For an appointment, please call 03 9214 5445 or email advocacy@swin.edu.au For more information, please see <https://www.swinburne.edu.au/current-students/student-services-support/advocacy/>