

Unit Outline

COS70004

User-Centred Design

Semester 2 2024

Please read this Unit Outline carefully. It includes:

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



"Swinburne University of Technology recognises the historical and cultural significance of Australia's Indigenous history and the role it plays in contemporary education

Each day in Australia, we all walk on traditional Indigenous land

We therefore acknowledge the traditional custodians of the land that our Australian campuses currently occupy, the Wurundjeri people, and pay respect to Elders past and present, including those from other areas who now reside on Wurundjeri land"

PART A: Unit Summary

Unit Code(s)	COS70004
Unit Title	User-Centred Design
Duration	12 weeks
Total Contact Hours	36
Requisites:	
Pre-requisites	None
Co-requisites	None
Concurrent pre-requisites	None
Anti-requisites	None
Assumed knowledge	None
Credit Points	12.5
Campus/Location	Hawthorn
Mode of Delivery	Blended
Assessment Summary	Project assessments Peer assessment Research report Online test

Aims

This unit of study aims to introduce students to the concept of usability and the process of User-Centred Design as a method of achieving good usability outcomes in software development.

Unit Learning Outcomes

Students who successfully complete this unit can:

1. Apply scholarly and evidence-based approaches to software requirements elicitation and specification.
2. Analyse software context of use (i.e., users, tasks and system environment) using a variety of models to identify user requirements.
3. Design and build a prototype user interface according to software requirements and usability design principles.
4. Apply a variety of usability evaluation methods to evaluate and iterate user interface design solutions.
5. Describe and apply guidelines for professional practice in the ethical treatment of human research participants.
6. Implement and reflect on strategies for working in small groups.

Graduate Attributes

The Swinburne Graduate Attributes describe the capability of our graduates to use knowledge, skills and behaviours to contribute to society meaningfully and positively. They include professional, self-directed learning and future-ready skills.

This unit contributes to the development of the following Swinburne Graduate Attributes:

- GA1 Communication - Verbal communication:
- GA2 Communication - Communicating using different media:
- GA3 Teamwork - Collaboration and negotiation:
- GA4 Teamwork – Teamwork roles and processes:
- GA5 Digital literacies– Information literacy:
- GA6 Digital Literacies– Technical literacy:

Other graduate attributes may be practised in the unit but are not formally taught as part of the unit content, nor incorporated within formal assessment.

Content

- ISO User-Centred Design process and principles
- Usability as a component of software quality
- Understanding and modelling context of use (users, tasks, and system environment)
- Requirements elicitation and specification
- Ethics of human research
- Usability design principles, guidelines and standards
- Conceptual design and iterative prototyping
- Usability evaluation methods
- Psychological principles

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:

- Improved of wording of assessment rubrics
- Updated textbook references
- Clarification of
 - assessment submission requirements
 - team member expected contribution to Project 3 and 4

Unit Teaching Staff

Name	Role	Room	Phone	Email	Consultation Times
Karola von Baggo	Unit Convenor and Lecturer	EN506c	9214 8439	kvonbaggo@swin.edu.au	Check Canvas home page for details
Andrew O'Connor	Moderator and Tutor	NA	NA	amoconnor@swin.edu.au	Check Canvas home page for details
Kaberi Naznin	Tutor	NA	NA	knaznin@swin.edu.au	Check Canvas home page for details
Harsharan Kaur	Tutor	NA	NA	harsharankaur@swin.edu.au	Check Canvas home page for details

Learning and Teaching Structure

Category	Activity	Total Hours	Hours per Week	Teaching Period Weeks
Live Online	Lecture	12 hours	1 hour	Weeks 1 to 12
On-Campus	Class	24 hours	2 hours	Weeks 1 to 12
Online	Directed Online Learning and Independent Learning	18 hours	1.5 hours	Weeks 1 to 12
Unspecified Activities	Various	96 hours	8 hours	Weeks 1-12

Week by Week Schedule

Wk	Date*	Lecture Topic	Tutorial Topic	Assessments
1	29/07	00 Introduction to Unit, 01 User-Centred Design	1. Introduction to UCD and Project, Group Formation	
2	05/08	02 Research Context of Use 03 Qualitative Data Analysis 04 Ethics of Human Research	2. Requirements elicitation: Interview method and ethics	Project 1
3	12/08	05 Requirements Specification 06 Model Construction	3. Model Construction and Requirements Extraction	
4	19/08	07 Conceptual Design 08 User Interface Design 1: Design Guidelines	4. Conceptual Design	
5	26/08	08 User Interface Design 2: Design Guidelines	5. User Interface Design	Project 2 Peer Evaluation
6	02/09	09 Prototyping 10 Intro to Usability Evaluation	6. User Interface Design	Project Research Report
	09/09 to 13/09	SEMESTER BREAK - NO CLASSES		
7	16/09	11 Rapid Evaluation	7. Preparing Usability Evaluations	
8	23/09	12 User Evaluation: Method	8. Expert review	
9	30/09	12 User Evaluation: Method	9. Preparing and Conducting Usability Evaluations	Project 3 Ethics Quiz
10	07/10	13 User Evaluation: Analysis	10. Usability Evaluation of Prototypes	
11	14/10	15 Case Study	11. Data Analysis and Redesign	Usability evaluation recording
12	21/10	Review	12. Final review	
Formal Assessment Period				Project 4 Peer Evaluation Online Test

* Week beginning

Assessment

a) Assessment Overview

Tasks and Details	Individual or Group	Weighting	Mapped Unit Learning Outcomes	Mapped Graduate Attributes	Assessment Due Date ⁺
Project 1: Team management plan	Group	5%	6	GA2, GA4, GA6	Week 2
Project 2: Context of use and user interface requirements	Group	15%	1, 2	GA2, GA3, GA6	Week 5
Project 3: User interface design video	Group	15%	2, 3, 4	GA1, GA2, GA3, GA6	Week 9
Project 4: Usability Evaluation	Group	20%	4, 5	GA3, GA4	Final assessment period
Peer Evaluation and Individual project tasks	Individual	10%	6	GA3, GA4	Week 5, 9, 10 and 12
UCD Project Report	Individual	15%	1, 2	GA2, GA5, GA6	Week 6
Online Test	Individual	20%	1, 2, 3, 4 and 5	Final assessment period	Final assessment period

⁺See Canvas for exact dates

b) Minimum requirements to pass this unit

To pass this unit, you must:

- achieve an overall mark for the unit of 50% or more

c) Final Assessment Period

If the unit you are enrolled in has a final assessment (including invigilated exams), you will be expected to be available for the entire final assessment period including any Special Exam period.

d) Use of generative AI (genAI) in this Unit

Project Report and Project Assessments: genAI (e.g., Copilot, ChatGPT) may be used for brainstorming, creating structures, improving grammar and generating ideas for improving work. Any use of genAI must be acknowledged, with prompts and outputs included in an appendix.

Online Test: Must be completed **without** use of genAI.

e) Submission Requirements

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

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

In cases where a hard copy submission is required an Assessment Cover Sheet must be submitted with your assignment. The standard Assessment Cover Sheet is available from the [Submitting work](http://www.swinburne.edu.au/studentforms/) webpage or www.swinburne.edu.au/studentforms/

See Canvas for detailed submission instructions for assessments in this unit.

f) 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.

g) Referencing

To avoid breaching academic integrity, you are required to provide references whenever you include information from other sources in your work and acknowledge when you have used Artificial Intelligence (AI) tools (such as ChatGPT). Further details regarding academic integrity are available in Section C of this document.

Referencing conventions required for this unit are: APA7

Helpful information on referencing can be found at <http://www.swinburne.edu.au/library/referencing/>

h) 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.

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.

To assist in the smooth running of teamwork, you are strongly encouraged to implement the following guidelines:

- All arrangements such as time and place for team meetings and work to be done must be confirmed in writing (e.g., email or agreed messaging platform (e.g., slack)) to minimise confusion.
- Use a file-sharing program to maintain documents and keep up-to-date copies of work. NOTE: *To avoid the risk of plagiarism, do not use group file sharing area to store your individual tasks.*

It is expected that all team communications and activities are conducted in a courteous and professional manner. Discourteous and/or unprofessional behaviour may result in exclusion from the team as per the Code of Conduct (see

below). All team communications must be archived until results are released. Academic Staff reserve the right to view and moderate team communications.

Teams will agree to a Code of Conduct at the beginning of the UCD Project. Team members who break the terms of the Code of Conduct may be excluded from the team and placed in a 'team' on their own (or with other excluded students).

Team members are expected to contribute intellectually to and understand all components of the UCD Project. Students who take credit for work they have not contributed to and/or does not understand, may be investigated for plagiarism.

Team marks may be adjusted depending on knowledge and/or contribution level of individuals which will be determined by one or more of the following:

- Team member peer assessments and/or written communications,
- Class attendance,
- Contribution to work product,
- Observations of teaching staff,
- Interviews with teaching staff.

Required Textbook(s)

The required textbook(s) are available through the Swinburne Library or can be purchased from bookshops.

Hartson, R. & Pyla, P. (2019). *The UX Book: Agile UX design for a quality user experience* (2nd ed.). Morgan-Kaufmann, Cambridge, MA

Recommended Reading Materials

The Library has a large collection of resource materials. 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.

Courage, C. & Baxter, K. (2015). *Understanding your users: A practical guide to user requirements, methods, tools and techniques*, (2nd ed.) Morgan-Kaufmann, San Francisco, CA.

Dumas, J. & Loring, B. (2008). *Moderating usability tests: Principles and practices for interacting*, Elsevier, Burlington.

Rubin, J. & Chisnell, D. (2008). *Handbook of usability testing: How to plan, design and conduct effective tests* (2nd ed). Wiley, Indianapolis.

PART C: FURTHER INFORMATION



For further information on any of these topics, refer to Swinburne's Student webpage <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 log on to the Swinburne learning management system, Canvas. You can access Canvas via the [Student login](#) 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 and acknowledging the use of generative artificial intelligence tools; contributing fairly to group work; and completing tasks, tests and exams without cheating. Artificial intelligence tools should only be used where approved by the Unit Convenor.

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 in a test, exam or assessment task are all breaches of academic integrity and treated as academic misconduct. Examples of breaches of academic integrity include:

- using the whole or part of computer program written by another person as your own without appropriate acknowledgement
- copying the whole or part of somebody else's work in an assessment, including material from a published work, a website or database, a set of lecture notes, current or past student's work, or any other person's work
- using output from artificial intelligence tools (e.g. ChatGPT) in whole or part without acknowledgement and/or without the approval of the Unit Convenor
- poorly paraphrasing somebody else's work
- using a musical composition or audio, visual, graphic and photographic work created by another without acknowledgment
- using objects, artefacts, costumes or models created by another person and presenting them as your own
- submitting assessments that have been developed by another person or service (paid or unpaid), 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.
- enabling others to 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 exclusion from Swinburne.

For further details, see <https://www.swinburne.edu.au/student-login/academic-integrity/>

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. See <https://www.swinburne.edu.au/life-at-swinburne/student-support-services/> for further information.

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 are 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. See <https://www.swinburne.edu.au/life-at-swinburne/student-support-services/special-consideration-assistance/>

Accessibility needs

Sometimes students with a disability, a mental health or medical condition or significant carer responsibilities require reasonable adjustments to fully access and participate in education. Swinburne's AccessAbility Services can develop an 'Education Access Plan' that includes the

services and reasonable adjustments that you need. The plan makes recommendations to University teaching and examination staff.

It is recommended that you register with AccessAbility Services 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.

You can ask the Unit Convenor to check the result for an assessment item or your final result. Your request must be made in writing within 10 working days of receiving the result. The Unit Convenor can discuss the marking criteria with you and check the aggregate marks of assessment components to identify if an error has been made. This is known as local resolution.

If you are dissatisfied with the outcome of the local resolution, you can lodge a formal complaint.

Feedback, complaints and suggestions

In the first instance, discuss any issues with your Unit Convenor. If your concerns are not resolved or you 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

If 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. Talking to an Advocacy Officer is free, independent and confidential.

For more information and booking an appointment, please see

<https://www.swinburne.edu.au/current-students/student-services-support/advocacy/>