

Unit Outline

COS20031

Computing Technology Design Project

Semester Sep, 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)		COS20031
Unit Title		Computing Technology Design Project
Duration		One Semester or equivalent
Total Contact Hours		48 hours
Requisites:		
	Pre-requisites	COS10009 Introduction to Programming OR COS10005 Web Development OR COS10026 Computing Technology Inquiry Project
	Co-requisites	Nil
	Concurrent pre-requisites	Nil
	Anti-requisites	Nil
	Assumed knowledge	Nil
Credit Points		12.5
Campus/Location		Ho Chi Minh City
Mode of Delivery		Blended
Assessment Summary		Portfolio 100%

Aims

This unit of study takes a project-based approach to a technical challenge provided by an external partner. Students apply design thinking to a data-focussed project. Students develop skills in their major discipline while working in a practical context with ethical, interpersonal and professional considerations typical for workplace environments.

Unit Learning Outcomes

Students who successfully complete this unit can:

1. Apply a design thinking approach to understand and solve a stakeholder problem.
2. Design and implement a project plan using industry standard project management and collaboration tools.
3. Apply ethical, professional and technical considerations in the development of the project (data management) solution.
4. Effectively discuss project-related considerations and deliverables with stakeholders, using industry-standard tools.
5. Identify project-related skills requirements, locate suitable resources and acquire the appropriate skills mostly independently.
6. Contribute to the project development as a respectful and responsible team member.

Graduate Attributes

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

- Communication 1 - Verbal communication
- Communication 2 - Communicating using different media
- Teamwork 1 - Collaboration and negotiation
- Teamwork 2 - Teamwork roles and processes
- Digital literacies 1 – Information literacy
- Digital Literacies 2 – Technical literacy

Content

- Design thinking
- Decision making
- Team management and collaboration tools
- Database design
- Data storage and management
- Professional and research ethics
- Professional communication, including constructive feedback
- Developing an inclusive and safe team culture
- Major specific content as determined by Project

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: this unit is offered for the first time.

Unit Teaching Staff

Name	Role	Email	Consultation Time
Dr Thomas HANG	Lecturer	nsam@swin.edu.au	By email appointment

Learning and Teaching Structure

Activity	Total Hours	Hours per Week	Teaching Period Weeks
Lecture	12 hours	01 hour	Weeks 1 to 12
Tutor	12 hours	01 hour	Weeks 1 to 12
Workshop	24 hours	02 hours	Weeks 1 to 12

Week by Week Schedule

Week	Week Beginning	Teaching and Learning Activity	Student Task or Assessment
1	04 Sep	Team building Confluence	Preparing team agreement
2	11 Sep	Project proposal Project planning and scoping Task management Jira	Preparing project proposal
3	18 Sep	Relational modelling principles diagrams.net	Drawing in diagrams.net
4	25 Sep	Design Thinking Personas Entities, identifiers, relationships Personas, mission statement	Developing personas and empathy maps Applying entities, relationships to project Project proposal due on Sunday, 01 Oct 2023 at 23:59 (VN Time).
5	02 Oct	Normalisation	Applying normalisation to project Project/team management Individual assessment 1 due on Sunday, 08 Oct 2023 at 23:59 (VN Time).
6	09 Oct	Getting started with DBMS Implementing design in DBMS	Translating project design into physical design Project/team management Individual assessment 2 due on Sunday, 15 Oct 2023 at 23:59 (VN Time)

7	16 Oct	Data preparation and loading /data generation tools	Populating database Project/team management Progress Report due on Sunday, 22 Oct 2023 at 23:59 (VN Time)
8	23 Oct	Queries and Transactions	Implementing use cases Project/team management
9	30 Oct	Performance: Indexes and their appraisal	Adding indexes to project database Project/team management Individual assessment 3 due on Sunday, 05 Nov 2023 at 23:59 (VN Time)
10	06 Nov	Major-specific work	Specialised enhancements of database solutions Project/team management Individual assessment 4 due on Sunday, 12 Nov 2023 at 23:59 (VN Time).
11	13 Nov	Major-specific work/ Finalising work on project, documentation and presentation video	Major specific additions in project repository
12	20 Nov	Finalising work on project, documentation and presentation video	+ Project deliverable and documentation due on Sunday, 26 Nov at 23:59 (VN Time) + Individual assessment 5 due on Sunday, 26 Nov at 23:59 (VN Time)

Assessment

a) Assessment Overview

Tasks and Details	Individual or Group	Weighting	Unit Learning Outcomes that this assessment task relates to	Assessment Due Date
1. Portfolio	Group	60%	1,2,3,4,5,6	Weeks 1 - 12
2. Portfolio	Individual	40%	1,3,5	Weeks 4 - 10

b) Minimum requirements to pass this Unit

To pass this unit, you must:

- (i) achieve an overall mark for the unit of 50% or more, and
- (ii) work in a team to complete the project to an acceptable standard.

Rubrics will be used to determine if students have met the acceptable standard. The rubrics are available on Canvas. Students who do not successfully achieve hurdle requirement (ii) in full, will receive a maximum of 45% as the total mark for the unit.

c) Examinations

If the unit you are enrolled in has an official examination, you will be expected to be available for the entire examination period including any Special Exam period.

d) 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](#) webpage or www.swinburne.edu.au/studentforms/

e) Extensions and Late Submission

Late Submissions - Unless an extension has been approved from the Unit Convenor, 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. For example, if a student achieves 90/100 on an assessment task but the task was submitted two days late. A late penalty of 20% (of that 90/100 mark) will be applied and the student's final mark will be recorded as 72/100 (being 90 less 09marks/1st day and another 09 mark/2nd day)

f) 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 under 'Academic Integrity'.

Referencing conventions required for this unit are: APA-style referencing.

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

g) 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.

Required Textbook(s)

No textbooks

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. Connolly & Begg, Database Systems, <https://archive.org/details/DatabaseSystemsChegg>

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 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.

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

Should you require assistance with any academic issues, University statutes, regulations, policies and procedures, you are advised to seek advice from Academic Department and Student HQ.