

School of Science, Computing and Engineering Technologies

# Unit Outline

**COS30043**

**Interface Design and Development**

Semester May, 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)** | | COS30043 |
| **Unit Title** | | Interface Design and Development |
| **Duration** | | One semester or equivalent |
| **Total Contact Hours** | | 36 hours |
| **Requisites:** | |  |
|  | **Pre-requisites** | (COS10005 Web Development  OR  COS10011 Creating Web Applications  OR  COS10026 Computing Technology Inquiry Project OR  ENG20009 Engineering Technology Inquiry Project)  AND  (COS20007 Object Oriented Programming  OR  SWE20004 Technical Software Development) |
|  | **Co-requisites** | Nil |
|  | **Concurrent pre-requisites** | Nil |
|  | **Anti-requisites** | Nil |
|  | **Assumed knowledge** | Object-oriented programming language at an intermediate level |
| **Credit Points** | | 12.5 credit points |
| **Campus/Location** | | Ha Noi |
| **Mode of Delivery** | | Blended |
| **Assessment Summary** | | Portfolio (Individual) 100% |

### Aims

Interface Design and Development aims to introduce students to design concepts and development tools and frameworks associated with the creation of dynamic user interfaces suitable for use across a range of platforms and devices.

### Unit Learning Outcomes

Students who successfully complete this Unit should be able to:

1. Apply fundamental design concepts and standards to the development of user interfaces
2. Use contemporary frameworks to create dynamic user interfaces
3. Design and develop user interfaces optimised for a range of devices and platforms
4. Evaluate user interfaces with respect to usability and accessibility using appropriate techniques, and propose improvements

### Graduate Attributes

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

* Communication skills
* Teamwork skills
* Digital literacies

### Content

* User interface design principles, patterns and techniques
* Client-side mark up, presentation and scripting languages
* Commemoratory frameworks for application and user interface development

## PART B: Your Unit in more detail

### Unit Improvements

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

• Content update

### Unit Teaching Staff

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Role** | **Email** | **Consultation Times** |
| Dr. Le Minh Duc | Lecturer/ Tutor | dle1@swin.edu.au | By email appointment |

### Learning and Teaching Structure

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **Total Hours** | **Hours per Week** | **Teaching Period Weeks** |
| Lectures | 24 hours | 2 hours | Weeks 1 to 12 |
| Tutorials | 12 hours | 1 hour | Weeks 1 to 12 |

### Week by Week Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Week Beginning** | **Teaching and Learning Activity** | **Student Task or Assessment** |
| 1 | May 08 | Unit Introduction  Web Development, Usability and Accessibility | Submit tasks for feedback and sign off.  Complete weekly tasks |
| 2 | May 15 | Layout and Grid System |
| 3 | May 22 | Directives, Filters and Data Binding |
| 4 | May 29 | View and ViewModel |
| 5 | June 05 | Components and Routes |
| 6 | June 12 | Forms and Validation |
| 7 | June 19 | Consuming External Services |
| 8 | June 26 | Pagination |
| **Mid Semester Break. No classes from Mon, 03rd**  **to Sat, 08th of July** | | |
| 9 | July 10 | Single Page Applications |
| 10 | July 17 | Vue CLI and Single Page Applications |
| 11 | July 24 | Portfolio Preparation and Unit Overview |
| 12 | July 31 | Summary and Further Studies |
| 13 | Aug 07 | Swotvac + Exam Period | P/C Portfolio Submission |
| Exam Period (07 – 09 Aug 2023) | D/HD Portfolio Submission and Interviews |

### Assessment

#### a) Assessment Overview

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tasks and Details** | **Individual or Group** | **Weighting** | **Unit Learning Outcomes that this assessment task relates to** | **Assessment Due Date** |
| 1a. Portfolio (for Pass and Credit) | Individual | 100% | All | **Monday, Aug 07 @23:59 VN Time** |
| 1b. Portfolio and Interview (for Distinction and High Distinction) | Individual | 100% | All | **Monday, 14 Aug @23:59 VN Time** |

#### 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) 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.

This unit has no final examination.

#### 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 Current Students web site (see Part C).

This unit uses portfolio assessment to determine your final grade. The details of the portfolio that you are requirement to submit is described in the **Portfolio and Assessment Criteria** document found under Assessment in Canvas.

#### 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.

Referencing conventions required for this unit are: **Harvard Style**

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

**g) Groupwork Guidelines**

There is no groupwork for this unit.

**Required Textbook(s)**

There is no required textbook.

### 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.

* [**Vue. js 3 by Example : Blueprints to Learn Vue Web Development, Full-Stack Development, and Cross-platform Development Quickly.**](https://librarysearch.swinburne.edu.au/discovery/fulldisplay?docid=alma9936957395501361&context=L&vid=61SUT_INST:SWIN2&lang=en&search_scope=MyInst_and_CI&adaptor=Local%20Search%20Engine&tab=Everything&query=any%2Ccontains%2Cvue%20js&offset=0)

Au-Yeung, John. author; ProQuest (Firm)

Birmingham : Packt Publishing, Limited; 2021

* [**Vue. js Quick Start Guide: Learn How to Build Amazing and Complex Reactive**](https://librarysearch.swinburne.edu.au/discovery/fulldisplay?docid=cdi_proquest_ebookcentral_EBC5568968&context=PC&vid=61SUT_INST:SWIN2&lang=en&search_scope=MyInst_and_CI&adaptor=Primo%20Central&tab=Everything&query=any%2Ccontains%2Cvue%20js&offset=0)

[**Web Applications Easily Using Vue. js**](https://librarysearch.swinburne.edu.au/discovery/fulldisplay?docid=cdi_proquest_ebookcentral_EBC5568968&context=PC&vid=61SUT_INST:SWIN2&lang=en&search_scope=MyInst_and_CI&adaptor=Primo%20Central&tab=Everything&query=any%2Ccontains%2Cvue%20js&offset=0)

Imsirovic, Ajdin

Birmingham: Packt Publishing, Limited; 2018

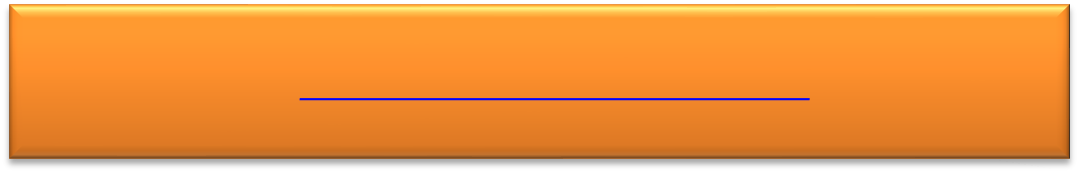
* [**Introducing Bootstrap 4: Create Powerful Web Applications Using Bootstrap 4.5**](https://librarysearch.swinburne.edu.au/discovery/fulldisplay?docid=cdi_askewsholts_vlebooks_9781484262030&context=PC&vid=61SUT_INST:SWIN2&lang=en&search_scope=MyInst_and_CI&adaptor=Primo%20Central&tab=Everything&query=any%2Ccontains%2Cbootstrap%20web&offset=0) Krause, Jorg

Apress; 2020

## PART C: FURTHER INFORMATION

**Student**

**behaviour and wellbeing**



For further information on any of

these

topics, refer to Swinburne’s Current

Students web page

[http://www.swinburne.edu.au/student](http://www.swinburne.edu.au/student/)

[/](http://www.swinburne.edu.au/student/)

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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](https://www.swinburne.edu.au/about/leadership-governance/policies-regulations/policies/people-culture-integrity/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,](https://www.swinburne.edu.au/about/leadership-governance/policies-regulations/statutes-regulations/student-academic-misconduct/) [Student General Misconduct Regulations](https://www.swinburne.edu.au/about/leadership-governance/policies-regulations/statutes-regulations/student-general-misconduct/) and the [People, Culture and Integrity Policy.](https://www.swinburne.edu.au/about/leadership-governance/policies-regulations/policies/people-culture-integrity/student-charter/) 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 Academic Department and Student HQ