COMP2110

Web Technology

Session 1, In person-scheduled-weekday, North Ryde 2023

School of Computing

Contents

General Information

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Credit points
10

Prerequisites (COMP1010 or COMP125) and (COMP1350 or ISYS114)
Corequisites
Co-badged status COMP6110

Unit description This unit covers a range of techniques and concepts that are relevant to implementing systems on the world wide web. From web site development using HTML and CSS, through to complete client-server applications, the unit explores the full spectrum of this technology, providing insight into the standards underlying the web and the programming techniques used to exploit these standards to build web applications.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Use your knowledge of the underlying technologies of the web to communicate in detail how web applications work

ULO2: Critique web design and apply good design principles to develop accessible web applications.

ULO3: Design and develop a data driven web application using modern web technologies.

ULO4: Demonstrate knowledge of security, privacy and ethical issues relating to web applications

ULO5: Develop and debug Javascript code as part of a web application

General Assessment Information

Requirements to Pass this Unit

To pass this unit you must:

- Achieve a total mark equal to or greater than 50%, and
- Participate in, and undertake all hurdle activities for, a minimum of 8 out of the 12 weekly workshops.

Workshop Hurdle

The workshop is a hurdle requirement, you must get 8 out of the possible 10 marks to pass the hurdle. Second chance: You don't have a second chance for each of the 12 weekly workshops, but you will have a total of 12 weeks where you could attend - hence you can miss at most four weeks of workshop tasks.

Late Submission

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark of the task) will be applied for each day a written report or presentation assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. The submission time for all uploaded assessments is **11:55 pm**. A 1-hour grace period will be provided to students who experience a technical concern.

For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, please apply for Special Consideration.

Assessments where Late Submissions will be accepted:

- Weekly Workshops - No, unless Special Consideration is granted
- Module Exams - No, unless Special Consideration is granted
- Web Development Project - YES, standard Late Penalty applies

Special Consideration

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment.

Weekly Workshop tasks: To pass the unit you need to demonstrate ongoing development of skills and application of knowledge in **at least 8 out of 12** of the weekly workshop classes. If you miss a class, you should ensure that you follow the workshop materials available online and contact your tutor or the lecturer if you have questions. Note that a Special Consideration should **only be applied for** if you miss more than **three** of the weekly workshop classes.

Web Development Project: this assessment task has a number of submission points, both individual and group submissions. If you are affected by an unavoidable disruption for one of these submissions you should apply for Special Conisderation and an extension of time will usually be granted. For a group submission, an extension for the whole group will be considered.

Assessment Tasks

Name	Weighting	Hurdle	Due
Workshop Tasks	10%	Yes	Weekly

Name	Weighting	Hurdle	Due
Module Examinations	20%	No	Weeks 4, 7, 10, 13
Web Development Project	40%	No	Weeks 5, 10, 12
Final Exam	30%	No	Exam period

Workshop Tasks

Assessment Type [1]: Practice-based task
Indicative Time on Task [2]: 0 hours
Due: **Weekly**
Weighting: **10%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

Each week there will be a task set during the practical workshop that you will need to complete. You will need to attend the workshop to complete this task and show your work to your tutor. Each week will be worth 1 mark up to a total of 10.

On successful completion you will be able to:

- Use your knowledge of the underlying technologies of the web to communicate in detail how web applications work
- Critique web design and apply good design principles to develop accessible web applications.
- Design and develop a data driven web application using modern web technologies.
- Demonstrate knowledge of security, privacy and ethical issues relating to web applications

Module Examinations

Assessment Type [1]: Examination
Indicative Time on Task [2]: 10 hours
Due: **Weeks 4, 7, 10, 13**
Weighting: **20%**

Each of the four modules in the unit will have an in-class assessment during the workshops.

On successful completion you will be able to:
- Use your knowledge of the underlying technologies of the web to communicate in detail how web applications work
- Critique web design and apply good design principles to develop accessible web applications.
- Demonstrate knowledge of security, privacy and ethical issues relating to web applications
- Develop and debug Javascript code as part of a web application

Web Development Project

Assessment Type [1]: Project
Indicative Time on Task [2]: 50 hours
Due: **Weeks 5, 10, 12**
Weighting: **40%**

In this project you will develop a web application and deploy it to the internet. The project will involve design, programming and devops activities and will be carried out in a group with some individually assessable components.

On successful completion you will be able to:
- Use your knowledge of the underlying technologies of the web to communicate in detail how web applications work
- Critique web design and apply good design principles to develop accessible web applications.
- Design and develop a data driven web application using modern web technologies.
- Develop and debug Javascript code as part of a web application

Final Exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 12 hours
Due: **Exam period**
Weighting: **30%**

The final exam will asses your ability to describe and explain the technologies we have covered in the unit. It will cover all of the material in the unit including aspects of the Web Development Project.

On successful completion you will be able to:

- Use your knowledge of the underlying technologies of the web to communicate in detail how web applications work
- Critique web design and apply good design principles to develop accessible web applications.
- Demonstrate knowledge of security, privacy and ethical issues relating to web applications

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Classes

COMP2110 is taught mainly through online notes and video presentations with a one-hour lecture. Each week a number of video presentations will be made available on iLearn, you should watch these and follow up on the topics covered before the lecture. The lecture will recap some of the video content and provide a forum for discussion of the topics of the week, as well as preview the video content in the following week.

You will also have a two-hour workshop each week in the computer laboratory.This will be used as a combined tutorial and practical class, with tasks each week to engage you in the topics we are discussing. The workshops give you a chance to talk over any problems with your tutor. There will be a checkpoint task each week for you to complete in the workshop, you must do this in the workshop and show your tutor the result. **There is no workshop class in Week 1 but there is a non-workshop task that you can gain marks for - see iLearn for details.**

Since your tutor will be keeping track of your marks, you should attend the workshop that you enroll in. If you do need to change, make sure your tutor and the tutor in the new class agree.

Required Texts

There is no required text for COMP2110. We have written a set of notes for the unit which will be added to through the semester. You can find them here:

- Practical Web Programming

We will also provide notes, slides and links to other resources each week. It is important that you follow up links provided with the video presentations and in the notes on each topic.

Required Technology

We will use Visual Studio Code as the recommended development environment although you are free to use your own favourite editor if you wish. You will be making use of a number of different web browsers (Firefox, Internet Explorer, Chrome, Safari, Opera...) to test web pages. You will use Node Javascript engine. All of this software will run on Windows, Mac or Linux.

Methods of Communication

We will communicate with you via your university email or through announcements on iLearn. Queries to teaching staffs can either be placed on the iLearn discussion board or sent emails from your university email address.

COVID Information

For the latest information on the University's response to COVID-19, please refer to the Coronavirus infection page on the Macquarie website: https://www.mq.edu.au/about/coronavirus-faqs. Remember to check this page regularly in case the information and requirements change during semester. If there are any changes to this unit in relation to COVID, these will be communicated via iLearn.

Unit Schedule

The schedule below is the planned Module list for the unit but minor changes may be made in response to student feedback or other factors. See the iLearn unit page for the definitive and more detailed week by week breakdown.

Week	Lecture Date	Topic	Who	Assessment
1	2/21	Module-1: HTTP, HTML and the Web	EX	
2	2/28			Workshop
3	3/7			Workshop
4	3/14	Module-2: Javascript	SC	Workshop, Module-1 Exam
5	3/21			Workshop, Project-Part1: Design
6	3/28			Workshop
7	4/4	Module-3: Design, Usability and Accessibility	EX	Workshop, Module-2 Exam
Mid-session Break				

8	4/25 (Anzac Day)			Workshop
9	5/2			Workshop
10	5/9	Module-4: Security and Privacy	SC	Workshop, Module-3 Exam, Project-Part2: Group Portal Development
11	5/16			Workshop
12	5/23			Workshop, Project-Part3: Deployment and Final Reports
13	5/30	Review	EM/SC	Workshop, Module-4 Exam
Exam Period				

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit Student Policies (https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the

University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

The last few offerings have used the Strapi server software to provide a back-end for the web development projects. This proved to be difficult to manage for students and created more problems than it solved, hence we have moved away from Strapi this time. Now, we will use a simple custom written server application to support the major project and focus more on client side web development.

We have also changed the balance of assessment in this unit to reduce the number of different tasks that students were asked to do.   The previous "Legal and Ethics Report" has been removed.   The Web Development project will be run as a group project; the coding requirement has been simplified and we concentrate on developing and deploying a realistic front-end web application. We have introduced a modular structure for the unit and added four module exams on each topic. These will be run during weekly workshop sessions.   The final exam will cover all material in the unit including aspects of the web development project experience.

Changes since First Published

Date	Description
05/03/2023	Add tutor's email: Jayen Ashar just got his appointment from HR.
16/02/2023	1. add a new tutor: Jiwei Guan 2. update a tutor's email address: Salma Khan