Curtin University

Unit Outline

COMP3011 Web Application Frameworks
Semester 1, 2024

Unit study package code:	COMP3011
Mode of study:	Internal
Tuition pattern summary:	Note: For any specific variations to this tuition pattern and for precise information refer to the Learning Activities section.
	Workshop: 1 x 3 Hours Weekly
	This unit does not have a fieldwork component.
Credit Value:	25.0
Pre-requisite units:	Nil
Co-requisite units:	Nil
Anti-requisite units:	COMP6006 (v.0) Web Application Frameworks or any previous version
Result type:	Grade/Mark
Approved incidental fees:	Information about approved incidental fees can be obtained from our website. Visit https://www.curtin.edu.au/students/essentials/fees/understanding-your-fees/ for details.

Unit coordinator:	**Title:**	Dr
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	Location:	Building: 314 - Room: 326
Teaching Staff:	**Name:**	Sheik Fattah
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Administrative contact:	**Name:**	EECMS Teaching Support
	Phone:	Email
	Email:	EECMS.TeachingSupport@curtin.edu.au

Learning Management System: Blackboard (lms.curtin.edu.au)

Acknowledgement of Country

We respectfully acknowledge the Indigenous Elders, custodians, their descendants and kin of this land past and present. The Centre for Aboriginal Studies aspires to contribute to positive social change for Indigenous Australians through higher education and research.

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Coronavirus (COVID-19) Update

Curtin University is committed to supporting all our students and staff whether they are on campus, working remotely or overseas. Your health, safety and wellbeing are our priority and the continuing COVID-19 pandemic may require changes to the unit schedule, learning activities, delivery modes and assessment to provide flexible and safe options to our community. Curtin will endeavour to keep changes and disruptions to a minimum at all times. For current advice and further information visit https://www.curtin.edu.au/novel-coronavirus/.

Syllabus

Explores the use of modern client-side and server-side application frameworks for development of sophisticated web applications. The unit first covers in-depth how to work within client-side frameworks to develop complex, usable and high-performance application front ends. Second, the unit discusses and explores back-end technologies for securely implementing server-side business logic and data storage.

Introduction

Web applications have become ubiquitous in today's world – millions of people and businesses in Australia and around the world use web applications daily to enable commerce, entertainment, education and many more other uses. These applications allow users to interact with computer systems and other users allowing them to make tasks easier and communicate with ease. This unit aims to provide you with the knowledge to develop modern web applications, using technologies such as Django, Express, React and Bootstrap using Python, JavaScript, HTML and CSS. These modern technologies are often the backbone of many contemporary web applications. Alongside this, you will learn patterns and techniques to develop web applications that maximise security, usability and performance, as well as learn how to communicate and interoperate between client and server-side components.

This unit, in line with current research and university values, strives to achieve a positive and inclusive educational environment. This supports improved academic performance, increased confidence and creates a greater sense of safety and belonging. Your teaching team is committed to providing a safe and inclusive learning experience and requires students to take reasonable and appropriate measures to actively eliminate discrimination on the basis of ability; cultural and social background; and diverse sex, sexuality, and gender.

Link to Equity and Inclusivity web resources: https://about.curtin.edu.au/values-vision-strategy/diversity-equity/.

Unit Learning Outcomes

All graduates of Curtin University achieve a set of six Graduate Capabilities during their course of study. These inform an employer that, through your studies, you have acquired discipline knowledge and a range of other skills and capabilities which employers would value in a professional setting. Each unit in your course addresses the Graduate Capabilities through a clearly identified set of learning outcomes. They form a vital part in the process referred to as assurance of learning. The learning outcomes notify you of what you are expected to know, understand or be able to do in order to be successful in this unit. Each assessment for this unit is carefully designed to test your knowledge of one or more of the unit learning outcomes. On successfully completing all of the assessments you will have achieved all of these learning outcomes.

Your course has been designed so that on graduating you will have achieved all of Curtin's Graduate Capabilities through the assurance of learning processes in each unit.

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	On successful completion of this unit students can:	Graduate Capabilities addressed
1	Prepare a full-stack traditional web applications utilising modern application frameworks	✔ 🔆 🖱 ⓘ
2	Produce a responsive and progressive single-page web application clients utilising modern application frameworks	✔ 🔆 🖱 ⓘ
3	Construct a server-side application program interfaces that interact with other application components and database systems, utilising modern frameworks	✔ 🖱 ⓘ
4	Understand the differences between different deployment architectures and considerations between them	✔ 🖱 ⓘ

Curtin's Graduate Capabilities

✔	Apply discipline knowledge, principles and concepts	🔆	Innovative, creative and entrepreneurial	🖱	Effective communicators with digital competency
🌐	Globally engaged and responsive	👥	Culturally competent to engage respectfully with local First Peoples and other diverse cultures	ⓘ	Industry connected and career capable

Find out more about Curtin's Graduate Capabilities at the Learning Innovation and Teaching Excellence Centre (LITEC) website: litec.curtin.edu.au

Learning Activities

This unit is delivered as a weekly three-hour workshop (combined lecture and computer laboratory), as indicated by the "Computer Laboratory" on "Plan Your Timetable". Please ignore the "Lecture" listed on "Plan Your Timetable". Throughout these workshops, you will learn about and practice the use of various contemporary tools and technologies to develop web applications, as well as gain knowledge in how these applications should be designed and implemented. There will be three assessments throughout the semester, which are described in the relevant section of this unit outline.

Learning Resources

Other resources

Free, online tutorials and reference materials (similar to books) will be made available throughout semester for students.

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Assessment

Assessment policy exemptions

- There are no exemptions to the assessment policy

Assessment schedule

	Task	Value %	Date Due	Unit Learning Outcome(s) Assessed	Late Assessments Accepted?*	Assessment Extensions Considered?*
1	Practical Work	25%	**Week:** 12 **Day:** Practical **Time:** Practical	1,2,3	Yes	Yes
2	Web Design Assignment	25%	**Week:** 4 **Day:** Sunday 24 March, 2023 **Time:** TBD	1,2,3	Yes	Yes
3	Final Examination	50%	**Week:** Week 14, 15 or 16 (TBC) **Day:** TBD **Time:** TBD	1,2,3,4	No	Yes

*Please refer to the Late Assessment and the Assessment Extension sections below for specific details and conditions.

Detailed information on assessment tasks

1. The practicals within this unit are summative and at the end of the semester you will have built a functional micro-blogging platform using the skills and technologies you have learnt in this unit. In the Week 12 practical, you will demonstrate the functionality of your platform and also describe some of the features which you have implemented. **You will need to submit your work at the end of the practical, hence the actual due date will be at the end of your workshop for Week 12.**

   Please note that due to Covid-19 impacts, the assessment schedule for this unit has been modified and the delivery of some classes may be affected. Should public health and/or University advice change through the study period it is possible that assessment and delivery details in this document may again need to be changed. You will be kept up-to-date with any changes as they happen through the Learning Management System announcements.

2. This formative assessment is designed to provide feedback early in semester regarding your progress in the unit. You will be required to build a basic web application using Django and the knowledge you have gained in the first three weeks. This assessment will be an assignment. You will also be required to justify the choices you have made in terms of security, usability and performance.

3. The final assessment for this unit will be undertaken in Weeks 15 and/or 16. For this assessment, you will be required to design and implement a simple web application and justify the decisions you make along the way. **Later in semester, a poll will be taken to determine the time most suitable for students to conduct the assessment.**

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Pass requirements

Students must score an overall mark of 50% or above in this unit to pass and make a reasonable attempt at each assessment.

Assessment Moderation

Fair assessment through moderation

Moderation describes a quality assurance process to ensure that assessments are appropriate to the learning outcomes, and that students work is evaluated consistently by assessors. Minimum standards for the moderation of assessments are described in the Assessment and Student Progression Manual, available from policies.curtin.edu.au/findapolicy/

Pre-marking moderation

Staff responsible for assessing student work will, as a minimum, be provided with an assessment rubric (or marking guide) in advance of the marking task. Assessment task details and marking criteria will be made available to students when the assessment task is assigned or in the unit outline. Other pre-marking moderation activities may be employed as appropriate to each assessment task.

Intra-marking / Post-marking moderation

Post-marking moderation will include (but is not limited to) at least one of the following methods:

- An analysis of the variances between markers and locations;
- Second marking or check second marking of a random sample of student work;
- Second marking or check second marking of a sample of student work deemed to be at significant thresholds;
- Second marking or check second marking of a sample of outliers (high or low scoring assessments);
- Panel of academics discuss and collectively reach a consensus.

Late assessment

Where the submission of a late assessment is permitted, late penalties will be consistently applied in this unit.

Where a late assessment **is** permitted for an assessment item or the entirety of the unit (refer to the Assessment Schedule table in this Unit Outline) and the student does not have an approved assessment extension:

1. For assessment items submitted within the first 24 hours after the due date/time, students will be penalised by a deduction of 5% of the total marks allocated for the assessment task;
2. For each additional 24 hour period commenced an additional penalty of 10% of the total marks allocated for the assessment item will be deducted; and
3. Assessment items submitted more than 168 hours late (7 calendar days) will receive a mark of zero.

Where late assessment **is NOT** permitted for an assessment item or the entirety of the unit (refer to the Assessment Schedule table in this Unit Outline) and the student does not have an approved assessment extension:

1. All assessment items submitted after the due date/time will receive a mark of zero.

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Assessment extension

Where an application for an assessment extension **is** permitted for an assessment item(s) within this unit (refer to the Assessment Schedule table in this Unit Outline):

1. A student who is unable to complete an assessment item by/on the due date/time as a result of exceptional circumstances beyond the student's control, may apply for an assessment extension on the Assessment Extension Application Form as prescribed by the Academic Registrar. The form is available on the Forms page at https://students.curtin.edu.au/essentials/forms-documents/forms/ and also within the student's OASIS (My Studies tab – Quick Forms) account.
2. The student will be expected to submit their application for an Assessment Extension with supporting documentation via the online form.
3. Timely submission of this information supports the assessment process. For applications that are declined, delayed submission may have significant ramifications on the possible marks awarded.
4. An application may be accepted up to five working days after the due date/time of the assessment item where the student is able to provide a verifiable explanation as to why they were not able to submit the application prior to the assessment due date/time

Where an application for an assessment extension **is NOT** permitted for an assessment item(s) within this unit (refer to the Assessment Schedule table in this Unit Outline):

1. All assessment items submitted after the due date/time will be subject to late penalties or receive a mark of zero depending on the unit permitting late assessment submissions.

Deferred assessments

If your results show that you have been granted a deferred assessment you should immediately check OASIS for details.

Deferred examinations/tests will be held from 15/07/2024 to 24/07/2024 . Notification to students will be made after the Board of Examiners' meeting via the Official Communications Channel (OCC) in OASIS.

Further assessment

Further assessments, if granted by the Board of Examiners, will be held between 15/07/2024 and 24/07/2024 . Notification to students will be made after the Board of Examiners meeting via the Official Communications Channel in OASIS.

It is the responsibility of the student to be available to complete the requirements of a further assessment. If your results show that you have been granted a further assessment you should immediately check OASIS for details.

Reasonable adjustments for students with disabilities/health circumstances likely to impact on studies

A Curtin Access Plan (CAP) is a document that outlines the type and level of support required by a student with a disability or health condition to have equitable access to their studies at Curtin. Carers for people with disability may also be eligible for support. This support can include alternative exam or test arrangements, study materials in accessible formats, access to Curtin's facilities and services or other support as discussed with an advisor from AccessAbility Services.

Documentation is required from your treating Health Professional to confirm your health circumstances or carer responsibilities.

If you think you may be eligible for a CAP, please contact AccessAbility Services. If you already have a CAP please provide it to the Unit Coordinator in week 1 of each study period.

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Referencing style

The referencing style for this unit is APA 7th Ed.

More information can be found on this style from the Library web site:
https://libguides.library.curtin.edu.au/uniskills/referencing/apa7.

Privacy

As part of a learning or assessment activity, or class participation, your image or voice may be recorded or transmitted by equipment and systems operated by Curtin University. Transmission may be to other venues on campus or to others both in Australia and overseas.

Your image or voice may also be recorded by students on personal equipment for individual or group study or assessment purposes. Such recordings may not be reproduced or uploaded to a publicly accessible web environment. If you wish to make such recordings for study purposes as a courtesy you should always seek the permission of those who are impacted by the recording.

Recording of classes or course materials may not be exchanged or distributed for commercial purposes, for compensation, or for any other purpose other than personal study for the enrolled students in the unit. Breach of this may subject a student to disciplinary action under Statute No 10 – Student Disciplinary Statute.

If you wish to discuss this please talk to your Unit Coordinator.

Copyright

The course material for this unit is provided to you for your own research and study only. It is subject to copyright. It is a copyright infringement to make this material available on third party websites without the express written consent of Curtin University.

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Academic Integrity (including plagiarism and cheating)
Academic Integrity

Curtin's Student Charter, Academic Integrity Program (AIP), and core Values guide expectations regarding student behaviour and responsibilities. Information on these topics can be found on the Academic Integrity Website.

Academic Integrity Warnings

An Academic Integrity Warning may be issued to a student in limited circumstances and only where misconduct is not involved.

Academic Misconduct

Staff members are required to report poor academic practice and suspected misconduct. Academic Misconduct means conduct by a student that is dishonest or unfair in connection with any academic work. This includes all types of plagiarism, cheating, collusion, falsification or fabrication of content, and behaviours like falsifying medical certificates for extension. Contract cheating, the use of file sharing, translation services/apps, paraphrasing tools (text-spinners), article generators, and assignment help websites also may be considered academic misconduct.

Check your assessment instructions carefully before using any generative artificial intelligence (Gen-AI) software (e.g. Chat GPT, Midjourney, GitHub Copilot, etc.). You are not permitted to use Gen-AI software in any assessment task unless written permission is explicitly granted by the Unit Coordinator (e.g. within Blackboard or the assignment specifications). If the use of Gen-AI software has been approved, you must document its use, apply appropriate acknowledgement and attribution rules, and include a statement as to the nature and extent of the use when submitting the assessment. Unapproved, inappropriate, or undisclosed use may be dishonest or unfair behaviour, and thus considered misconduct. For further information on the use of Gen-AI software see the Academic Integrity Website.

The longer term personal, social, and financial consequences of misconduct can be severe, so please ask your tutors or unit coordinator if you need clarification or are unsure what to do. If your work is the subject of an inquiry, you will be given an opportunity to respond and appropriate support will be provided. Academic work under inquiry will not be graded until the process has concluded. Penalties for misconduct may include a warning, a reduced or nil grade, a requirement to repeat the assessment, an annulled grade (ANN) or termination from the course. For more information refer to Statute No.10 Student Discipline and Academic Misconduct Rules.

Information and Communications Technology (ICT) Expectations

Curtin students are expected to have reliable internet access in order to connect to OASIS email and learning systems such as Blackboard and Library Services.

You may also require a computer or mobile device for preparing and submitting your work.

You will require a computer for preparing and submitting your work, including an IDE (e.g. Visual Studio Code) as well as various software packages (primarily but not limited to Django, Bootstrap, React and Node.js). A web browser is required to access and utilise Blackboard and a compression program required to prepare submissions. All of this software is freely available for download and can be used in the Building 314 Level 1/2 computer laboratories. Limited technical assistance may be provided for getting this software working on your own machine; suggestions will be made to use the Virtual Desktop Environment if issues persist.

For general ICT assistance, in the first instance please contact OASIS Student Support: oasisapps.curtin.edu.au/help/general/support.cfm

For specific assistance with any of the items listed below, please visit UniSkills and the IT tools and guides webpage.

- Using Blackboard, the I Drive and Back-Up files
- Introduction to PowerPoint, Word and Excel

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Additional information

Enrolment

It is your responsibility to ensure that your enrolment is correct - you can check your enrolment through the eStudent option on OASIS, where you can also print an Enrolment Advice.

Student Rights and Responsibilities

It is the responsibility of every student to be aware of all relevant legislation, policies and procedures relating to their rights and responsibilities as a student. These include:

- the Student Charter
- Values and Signature Behaviours
- the University's policy and statements on plagiarism and academic integrity
- copyright principles and responsibilities
- the University's policies on appropriate use of software and computer facilities

Information on all of the above is available through the University's "Student Rights and Responsibilities" website at: students.curtin.edu.au/rights.

Note: In Australia and other jurisdictions, students are required to complete a screening check prior to undertaking any activities that include children (e.g. surveying children at a school as part of a project). If this applies to you, start by contacting your unit coordinator for advice.

Student Equity

There are a number of factors that might disadvantage some students from participating in their studies or assessments to the best of their ability, under standard conditions. These factors may include a disability or medical condition (e.g. mental illness, chronic illness, physical or sensory disability, learning disability), significant caring responsibilities, pregnancy, religious practices, living in a remote location,or another reason. If you believe you may be unfairly disadvantaged on these or other grounds please contact the appropriate service below. It is important to note that the staff of the University may not be able to meet your needs if they are not informed of your individual circumstances, so please get in touch with the appropriate service if you require assistance.

To discuss your needs in relation to:

- Disability or medical conditions, contact AccessAbility Services: https://students.curtin.edu.au/personal-support/disability/
- Elite athletes, contact Elite Athlete Coordinator: https://stadium.curtin.edu.au/sport/academy/elite-athlete-program/
- All other grounds, contact the Student Wellbeing Advisory Service: https://students.curtin.edu.au/personal-support/counselling-guidance/wellbeing/

Recent Unit Changes & Response to Student Feedback

Students are encouraged to provide feedback through student surveys (such as Insight (Curtin's new unit and teaching survey developed in collaboration with students and staff) and the annual Student Experience Survey) and interactions with teaching staff.

Listed below are some recent changes to the unit as a result of student feedback.

Content has been re-arranged to better flow and be useful to students to build upon.

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Program calendar

Program Calendar – Semester 1 2024

Week	Begin Date	Lecture & Practical	Assess
Orientation	19 February	Orientation Week	
1.	26 February	Django (Part 1)	
2.	4 March	Django (Part 2)	
3.	11 March	Django (Part 3)	
4.	18 March	Bootstrap (Part 1)	Web Development
5.	25 March	Bootstrap (Part 2)	
6.	1 April	Tuition Free Week	
7.	8 April	Express.js (Part 1)	
8.	15 April	Express.js (Part 2)	
9.	22 April	React.js (Part 1)	
10.	29 April	React.js (Part 2)	
11.	6 May	React.js (Part 3)	
12.	13 May	Assessment One	Practical Work
13.	20 May	Revision, Catch up, Q & A	
14.	27 May	Study Week	
15.	3 June	Examinations	
16.	10 June	Examinations	

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