ITC561 - Cloud Computing

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Charles Sturt University Subject Outline
ITC561 202330 SM I
Version 1 - Published 13 February 2023
Charles Sturt University - TEQSA Provider Identification: PRV12018 (Australian University). CRICOS Provider: 00005F

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Subject Summary

ITC561 - Cloud Computing
Session 1 2023
Faculty of Business, Justice and Behavioural Sciences
School of Computing, Mathematics and Engineering
Internal Mode
Credit Points 8
Welcome to a new session of study at Charles Sturt University. Please refer to the University's
Acknowledgement of Country (https://about.csu.edu.au/our-university/ethos/indigenous-commitment).

Subject Coordinator

Subject Coordinator Dr Pallavi Sharma
Email pallavi.sharma@studygroup.com
Phone +61 3 9935 7938

Consultation procedures

Any questions concerning the teaching of this subject can be made by contacting your Subject Lecturer.

Lecturer Name: Gopi Akella

Lecturer Email: GAkella@studygroup.com

Email is the best option. Please send a brief message regarding the issue and include the subject name and subject code in your email – it really helps to know which class you belong to, before I respond to your query. If your query is urgent then contact your respective Course Coordinator ASAP.

Subject Overview

Abstract

This subject provides students with an in-depth study of cloud computing technologies and their use in business. It looks into various standards based cloud systems and architectures. It further discusses various cloud delivery models, planning for migration to a cloud model. It also discusses governance and security issues in a cloud model and managing the cloud infrastructure.

Learning outcomes

Upon successful completion of this subject, students should:

- be able to compare and evaluate the ability of different cloud computing architectures to meet a set of given business requirements;
- be able to evaluate a set of business requirements to determine suitability for a cloud computing delivery model;
- be able to identify and design an ICT Risk Management strategy for a cloud computing delivery plan to meet business requirements;
- be able to critically analyse business requirements to plan a migration to a cloud model;
- be able to compare and critique Service Level Agreements (SLA) that meet the business requirements for a cloud computing plan

Subject content

This subject covers the following topics:

- Cloud basics: What, Why and How?
- Cloud Enabling Technologies
- Cloud Data Storage and Database Management
- Cloud Architectures and Applications
- Cloud Business Development and Migration
- Cloud Networks, Risk Management and Security
- Cloud KPI, Performance Metrics and SLA
- The Cloud Edge, Fog and IoTs
- AI on the Cloud
- Blockchain on the Cloud

Academic Progress Requirements

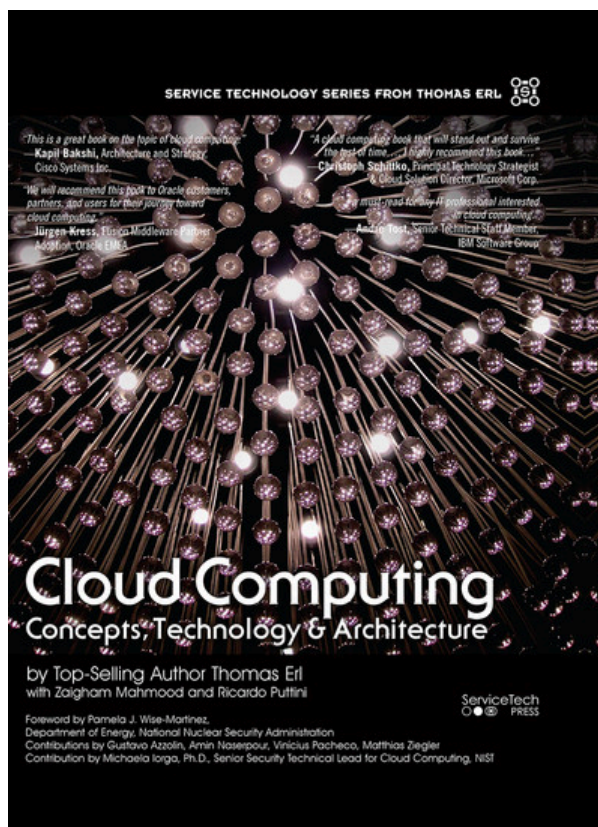To remain enrolled as a student at Charles Sturt University, you must be a genuine student and pass more than 50% of your subjects, along with other criteria set out in the Academic Progress Policy (https://policy.csu.edu.au/document/view-current.php?id=513). If you are identified as a non-genuine student or fail to meet academic progress requirements, the University may remove you from your subject and or course.

Being a genuine student means you are actively participating in your learning (e.g. submitting assessment items and accessing Interact2). If you are receiving any type of Commonwealth Assistance, including a Commonwealth Supported Place and/or any type of HELP loan and not actively participating in your learning prior to the census date, you will be contacted by the University to discuss your options. The University will also contact you if you are not meeting academic progress (https://www.csu.edu.au/current-students/studying/support/academic-progress) requirements and you may be offered support or be required to engage with support services.

Subject Schedule & Delivery

Prescribed text

Find information about required textbooks for your subject on the Current Students (https://www.csu.edu.au/current-students/studying/library/textbooks) site. The Library (https://library.csu.edu.au/) provides free access to many textbooks online; check the Library's catalogue before purchasing your textbooks.

Erl, T., Mahmood, Z., & Puttini, R. (2013). *Cloud Computing. Concepts, Technology & Architecture*. Pearson.

Online line access is available here (https://learning.oreilly.com/library/view/cloud-computing-concepts/9780133387568/). Login using your CSU email address and select "SSO login".

AWS Cloud Account

You will also be required to use an Amazon Web Services (AWS) account for this subject. If you do not already have an AWS account, you can create one here (https://aws.amazon.com/free/). It is your responsibility to maintain this account , including shutting down any unused resources to avoid incurring charges.

Access to this account is essential in order to complete your assessments.

Class/tutorial times and location

If you are studying at a Study Centre or other partner institution, your class timetable information will be provided by your institution.

Schedule

Session Week	Week Commencing	Topics	Learning activities	Other Information
1	27 Feb	Topic 1: Cloud basics and Enabling Technologies	Topic 1 on Interact2 AWS Academy Cloud Foundations Module 1 - Cloud Concepts Overview	
2	06 Mar	Topic 2: Cloud Concepts and Models	Topic 2 on Interact2 AWS Academy Cloud Foundations Module 2 - Cloud Economics and Billing	
3	13 Mar	Topic 3: Cloud Data Storage and Database Management	Topic 3 on Interact 2 AWS Academy Cloud Foundations Module 7 - Storage AWS Academy Cloud Foundations Module 8 - Databases	
4	20 Mar	Topic 4: Cloud Architectures and Applications	Topic 4 on Interact2 AWS Academy Cloud Foundations Module 9 - Cloud Architecture	**Assessment 1 due 22 Mar** **Census Date: 24/ Mar/2023**
5	27 Mar	Topic 5: Cloud Business Development and Migration	Topic 5 on Interact2 AWS Academy Cloud Foundations Module 3 - AWS Global Infrastructure Overview	

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Session Week	Week Commencing	Topics	Learning activities	Other Information
6	3 Apr	Topic 6: Cloud Networks, Risk Management and Security	Topic 6 on Interact2 AWS Academy Cloud Foundations Module 4 - AWS Cloud Security	
	10 Apr - 21 Apr 2023	**Mid Session Break**		**Assessment 2 due 12 Apr**
7	24 Apr	Topic 7: Cloud KPI, Performance Metrics and SLA	Topic 7 on Interact2 AWS Academy Cloud Foundations Module 10 - Auto Scaling and Monitoring	
8	01 May	Topic 8: The Cloud Edge, Fog and IoTs	Topic 8 on Interact2 AWS Academy Cloud Foundations Module 5 - Networking and Content Delivery	**Assessment 3 due 3 May**
9	08 May	Topic 9: AI on the cloud	Topic 9 on Interact 2 AWS Academy Cloud Foundations Module 6 - Compute	
10	15 May	Topic 10: Blockchain on the Cloud	Topic 10 on Interact2	
11	22 May	Summary and Review	All Topics	**Assessment 4 due 24 May**
12	29 May	Revision	All Topics	
	5 Jun - 16 Jun 2023	**Exam Period**	Exam details to be advised	

Please see below Additional/Replacement Class Requirements for this session:

Classes running on the following Public Holidays may have a replacement class depending on your
lecturer's campus location.

• Labour Day 13 March 2023 (VIC)
• Good Friday 07 April 2023 (NSW and VIC)
• Easter Monday 10 April 2023 (NSW and VIC)
• Anzac Day 25 April 2023 (NSW and VIC)

• King's Birthday 12 June 2023 (NSW and VIC)

This study schedule has been devised to assist in your planning during the session and is intended as a guide only.

Note: Attendance is expected in all scheduled lectures and tutorials. This will help you to understand subject matters well.

Learning materials

Details of learning materials that support your success in this subject can be found in the Interact2 Subject Site.

Learning, teaching and support strategies

How you are expected to engage with the subject

Subject materials are available on the subject Interact2 site. This materials has been specifically written to provide an overview of the topic in the prescribed textbook. You should check the subject Interact2 site at least weekly for postings, announcements, lecture information and other resources that will assist your studies. Before starting each topic, I suggest that you read the learning objectives, overview, and the related textbook content. Once you have an idea of the topic's content, try and make a good set of notes for each topic and a set of questions that you can ask during the lecture. This will provide you a good understanding of the topic and will assist you in your assessments and exam preparation.

How to contact your Subject Coordinator

In this subject, there are lots of opportunities for you to engage with me, with your peers and with the subject. I will checking the Discussion Board at least once a week throughout the session. If you need an immediate response, please don't hesitate to contact me by email. Make sure to include the subject name and code in the email subject line. You can also contact me using my phone number indicated in this subject outline. In case I cannot take your call immediately, please leave a message with your name, subject name, and a brief description of the issue you need assistance with. I will get back to you as soon as possible.

Studying at university does not mean studying alone. Take advantage of collective wisdom and post your questions to the subject forum.

Use the subject schedule to plan your studies over the session.

Information on effective time management is available on the CSU Learning Support website via the following link: http://student.csu.edu.au

You can also contact an adviser through Student Central on the following number:

1800 275 278 (or +61 2 6933 7507 from outside Australia).

Library services

The Library supports your learning journey by providing the following:
  • Qualified Information professionals to assist with all your information needs.

- Library orientation, database searching, and information literacy workshops run during the semester

To access the range of resources available to you at Charles Sturt University Study Centres, go to the library's iLearn page (https://interact2.csu.edu.au/webapps/blackboard/content/listContent.jsp?course_id=_59470_1&content_id=_4445538_1&mode=reset)

The CSU Library provides access to online resources including:

- Peer-reviewed journal articles

- eBooks

- Company and government reports

- eJournals

- Dissertations & theses

- Newspapers including Business & Financial newspapers in Factiva (see Business & IT Journal databases)

- Other Reference resources (eg. Australian Bureau of Statistics, Australian standards, online encyclopaedias & dictionaries to be read on the computer

Other CSU Library services and resources:

- Video tutorials in research skills, finding journal articles for assignments, topic analysis

- Endnote referencing software

- Online assistance via free call on 1800 808 369, or 'Ask a Librarian' - Live Chat or Web Form.

- Other online library services to help you successfully complete your assignments

Subject Library Resource Guides

http://libguides.csu.edu.au/

Subject Library Guides are tailored guides for specific areas of study. Many subject guides are set up for specific subjects offered by Charles Sturt University. The guides offer the fastest way to get ahead in many of your subjects. Subject areas include Accounting, Business, Information Technology and many others.

Online Tutorials

http://student.csu.edu.au/library/study-research/training-tutorials-videos (http://student.csu.edu.au/library/study-research/training-tutorials-videos)

Learn how to:

- Use Primo Search to find eReserve study materials and journal articles

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- Search journal databases and web resources for information for your assessment tasks

- Identify appropriate sources of information and peer reviewed material, to evaluate resources

Library Help

See the library's iLearn (https://interact2.csu.edu.au/webapps/blackboard/content/listContent.jsp?course_id=_59470_1&content_id=_4445538_1&mode=reset) for contact and information to assist you with your studies and using the library. Friendly and quick assistance is available. Ask for help finding information and navigating the library's extensive eResources.

Academic Learning Support Assistance:

Visit the learning support website for advice about assignment preparation, academic reading, and note-taking, referencing, and preparing for exams at: http://student.csu.edu.au/study (http://student.csu.edu.au/study%E2%80%8B)

Study Support Coordinators are available at each campus to assist students with a range of academic support including:

- Referencing and citing sources with APA7

- Paraphrasing and summarising sources

- How to research assessment topics effectively

- Developing an argument through paragraph structure

- Draft checks for grammar and sentence structure

- Formatting essays and reports

For appointments with Study Support in Melbourne, please send an email to CSUstudysupportmc@studygroup.com (mailto:CSUstudysupportmc@studygroup.com)

For appointments with Study Support in Sydney, please send an email to CSUDarlinghurstStudySupport@studygroup.com (mailto:CSUDarlinghurstStudySupport@studygroup.com)

To contact Study Support Coordinators for your campus via phone or Zoom, please visit this iLearn site (https://interact2.csu.edu.au/webapps/blackboard/content/listContentEditable.jsp?content_id=_4447316_1&course_id=_59470_1&mode=reset) for a schedule of availability.

Queries regarding the content of this subject should be directed to your subject lecturer.

Recommended student time commitment

This subject is an 8 point subject. The Charles Sturt Course and Subject Design (Coursework) Procedure (https://policy.csu.edu.au/document/view-current.php?id=504) states that a

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standard 8 point subject should require students to spend up to 160 hours engaged in learning and teaching activities. These activities include the time spent in preparation for assessment, including study for examinations, tests and assignment preparation.

Assessment and Exam Items

Essential requirements to pass this subject

You must obtain at least 50% in both the total mark and the examination mark in order to pass this subject.

If you marginally fail these pass criteria you are entitled to a second chance in the following circumstances:

I. You are eligible for an Additional Assignment (AA) if you submitted all assessment items, passed the exam (e.g. you scored 50% or above) but received an overall mark between 45 and 49;

or

II. You are eligible for an Additional Examination (AE) if you submitted all assessment items (including the final exam) but failed the exam (e.g. you scored less than 50%) and received an overall mark of 45 or above.

However, if you are found guilty of academic misconduct then you may not receive your second chance.

Items

Item No.	Title	Value	Due Date*	Return Date**
1	Online Quiz	5%	22-Mar-2023	14-Apr-2023
2	Cloud Logic Implementation on AWS	10%	12-Apr-2023	05-May-2023
3	AWS Labs	10%	03-May-2023	24-May-2023
4	Cloud Plan Development	25%	24-May-2023	16-Jun-2023
5	Final Exam	50%	To be advised	-

* Due date is the last date for assessment items to be received at the University
** Applies only to assessment items submitted by the due date

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Assessment item 1 - Online Quiz

Value: 5%
Due Date: 22-Mar-2023
Return Date: 14-Apr-2023
Group Assessment: No
Submission method options: Interact2 Test

TASK

The online quiz consists of twenty (20) questions. All questions are either multiple-choice, true/false, or fill-in-the-blank. The questions are marked automatically and reviewed before the final marks are released.

You can attempt the quiz twice. The better of your two attempts will count. Incorrect responses will be indicated when you submit your first attempt - this will give you a chance to learn from the mistakes before your second attempt. The questions are drawn randomly from a pool and so you will get different questions each time (and different from those obtained by other people).

Once you begin the quiz, you will have 2 hours to complete it. You should be able to complete the task in much less time. Once the 2 hours have passed, the quiz will automatically close and the attempt will be automatically submitted. Force completion is off – meaning that if you accidentally close your browser, your quiz is not submitted and you can resume from the last saved question. The timer continues while the browser is closed.

Information about what questions you are graded right or wrong is available immediately after completion. From after the due date, full feedback on each question (including what answer is correct). Use this to help learn. Full feedback can be seen by clicking the mark in My Grades or looking at the quiz again.

The quiz covers topics 1 and 2.

Since full feedback is available after the due date, extensions are not possible.

RATIONALE

SUBJECT LEARNING OUTCOMES

This assessment task will assess the following learning outcome/s:
- be able to compare and evaluate the ability of different cloud computing architectures to meet a set of given business requirements.

GRADUATE LEARNING OUTCOMES

This task also contributes to the assessment of the following Charles Sturt Graduate Learning Outcome/s (https://student.csu.edu.au/study/glo):
- Digital Literacies (Knowledge) - Charles Sturt Graduates understand professional, social and cultural implications of the global use of technology.

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MARKING CRITERIA AND STANDARDS

Marks will be allocated according to the following scale:

- HD - At least 85% answers are correct
- DI - At least 75% answers are correct
- CR - At least 65% answers are correct
- PS - At least 50% answers are correct
- FL – less than 50% answers are correct

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Assessment item 2 - Cloud Logic Implementation on AWS

Value: 10%
Due Date: 12-Apr-2023
Return Date: 05-May-2023
Group Assessment: No
Submission method options: Alternative submission method

TASK

You will need to complete Part 1 to do Parts 2 and 3.

The core element of this assignment is the development and deployment of a cloud-based business website or web application with features of serverless architecture, managed execution and swift deployment as an introduction for the Cloud Plan Development in Assessment 4.

This assessment task consists of three parts:

Part 1: Short courses (20 marks)

Complete the following two short courses on LinkedIn Learning (login using your CSU email address):

- Serverless Static Websites on AWS (https://www.linkedin.com/learning/serverless-static-websites-on-aws)
- Building Dynamic Websites using AWS Lambdas (https://www.linkedin.com/learning/building-dynamic-websites-using-aws-lambdas/)

After completing the courses, add the course completion certificates to your LinkedIn profile and take screenshots of these including your profile with your Student Name.

Marks are awarded for completed courses only. 10 marks per course.

You will need to complete Part 1 to do Parts 2 and 3.

Part 2: Static website hosted on an S3 bucket (30 Marks)

Create a static two-page (HTML/CSS) website using your Student Name. Use a professional CSS3 style such as W3.CSS (https://www.w3schools.com/w3css/) or Bootstrap (https://www.w3schools.com/bootstrap/) and include your Student Name on the main page. Then, host your static website on an S3 bucket. You do not need a dedicated domain name.

Part 3: Dynamic page using AWS Lambda Function integration (50 Marks)

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Reuse the website developed in the previous step and add a dynamic page. The dynamic page should contain a menu that will lead to a contact page. When the user interacts with the contact page (e.g. by completing details and clicking the submit button), the page should call a Lambda function that performs some action and returns a response that is rendered with JS back to the user.

Report Format

Provide a written report containing the following:

- Title and Name
- Your LinkedIn profile link showing courses added to your profile
- The Screenshots of your LinkedIn profile with the course completion certificates.
- Part 2 working link
- Part 3 working link

Refer to the **marking criteria and standards** to understand the requirements better.

RATIONALE

SUBJECT LEARNING OUTCOMES

This assessment task will assess the following learning outcome/s:

- be able to compare and evaluate the ability of different cloud computing architectures to meet a set of given business requirements.
- be able to evaluate a set of business requirements to determine suitability for a cloud computing delivery model.

GRADUATE LEARNING OUTCOMES

This task also contributes to the assessment of the following Charles Sturt Graduate Learning Outcome/s (https://student.csu.edu.au/study/glo):

- Information and Research Literacies (Knowledge) - Charles Sturt Graduates demonstrate that disciplinary knowledge is developed through research and evidence.
- Information and Research Literacies (Skill) - Charles Sturt Graduates demonstrate the skills required to locate, access and critically evaluate existing information and data.
- Digital Literacies (Knowledge) - Charles Sturt Graduates understand professional, social and cultural implications of the global use of technology.
- Digital Literacies (Skill) - Charles Sturt Graduates use, create, communicate and share multimodal information in digital environments.
- Digital Literacies (Application) - Charles Sturt Graduates ethically, legally, safely and critically use technology to select, create and share information and participate in online learning, professional and social communities.
- Professional Practice (Knowledge) - Charles Sturt Graduates possess the knowledge and understanding of the discipline and the nature of professionalism required for the given profession or discipline in contemporary societies.

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- Professional Practice (Skill) - Charles Sturt Graduates demonstrate discipline-specific technical capabilities and self-appraisal required for a beginning practitioner or professional.
- Lifelong Learning (Knowledge) - Charles Sturt Graduates anticipate lifelong learning requirements post-graduation.
- Lifelong Learning (Skill) - Charles Sturt Graduates seek and employ feedback to reflect on performance and outcomes in order to develop as an individual and professional.
- Lifelong Learning (Application) - Charles Sturt Graduates reflect on personal capabilities and develop habits of self-directed learning that will extend beyond student life.

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MARKING CRITERIA AND STANDARDS

Criteria	HD	DI	CR	PS	FL
LinkedIn Courses Completion (20 marks)	Both courses are fully completed. The link directly shows evidence of the completion of both courses. Screenshot/s of LinkedIn profile with completed courses.	Both courses are fully completed. The link directly shows evidence of the completion of both courses. Screenshot/s of LinkedIn profile with completed courses.	Both courses are fully completed. The link can be navigated to show evidence of the completion of both courses. Screenshot/s of LinkedIn profile with completed courses.	One course successfully completed. Link can be navigated to show evidence of the completion of one course. Screenshot/s of LinkedIn profile with the completed course.	Neither course was completed, no link was provided or the link cannot be navigated to show evidence of course completion.
Static Website Implementation (30 marks)	High-quality HTML/CSS pages with the Student's Name. All links are working correctly. S3 bucket configured with the correct permissions.	Good quality HTML/CSS pages with the Student's Name. Most links are working correctly. S3 bucket configured with the correct permissions.	Acceptable quality HTML/CSS pages with the Student's Name. Some links are working. S3 bucket configured with correct permissions.	Basic HTML pages that demonstrate with the Student's Name. S3 bucket configured with the correct permissions.	Missing links. No HTML pages were created, Student's Name missing. S3 bucket is not configured correctly or the website is not hosted on the S3 bucket.
Dynamic Website Implementation (50 marks)	Dynamic page with the Student's Name. All requests and responses follow the correct REST API syntax rules. Lambda function is correctly	Dynamic page with the Student's Name. All requests and responses follow the correct REST API syntax rules. Lambda function is correctly	Dynamic page simulates a general business-related function with acceptable quality input and output design with the	Dynamic page with the Student's Name. At least one request and response follow the correct REST API syntax rules. The lambda function is	Dynamic page is missing, does not simulate any function or incorrect REST API syntax. Lambda function is incorrectly configured or does

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Criteria	HD	DI	CR	PS	FL
	configured and always returns the expected responses.	configured and mostly returns the expected responses.	Student's Name. . Most requests and responses follow the correct REST API syntax rules. Lambda function is correctly configured and mostly returns the expected responses.	correctly configured and returns some response. Missing JS in return response.	not return any response.

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PRESENTATION

Your report should use the following presentation standards:

- Use Calibri, or a similar font, in 11 or 12 point type.
- All diagrams and images are to be embedded in the document.
- All text should be left-justified.
- Each page must have a header or footer with your name and student number. Page numbers must be shown in the footer of each page, except on the title page.

Submit your report as a Word (docx) or LibreOffice Writer (odt) document through Turnitin.

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Assessment item 3 - AWS Labs

Value: 10%
Due Date: 03-May-2023
Return Date: 24-May-2023
Group Assessment: No
Submission method options: Alternative submission method

TASK

For this assessment, you will be enrolled in the AWS Academy Cloud Foundations course.

Complete the following labs in the AWS Academy Cloud Foundations course:

- Lab 1 - Introduction to AWS IAM
- Lab 2 - Build your VPC and Launch a Web Server
- Lab 3 - Introduction to Amazon EC2
- Lab 5 - Build a Database Server
- Lab 6 - Scale & Load Balance your Architecture

Submit a report containing screenshots showing the main steps of each lab. Each screenshot must be a full screen showing your user login name and the date and time on your computer. You must also include a screenshot showing the Interact2 site with your name and the date and time on your computer for each lab.

Screenshots not showing your user login name and the date and time on your computer or Labs missing a screenshot showing the Interact2 site with your name and the date and time on your computer will be awarded zero marks.

RATIONALE

SUBJECT LEARNING OUTCOMES

This assessment task will assess the following learning outcome/s:
- be able to compare and evaluate the ability of different cloud computing architectures to meet a set of given business requirements.
- be able to evaluate a set of business requirements to determine suitability for a cloud computing delivery model.

GRADUATE LEARNING OUTCOMES

This task also contributes to the assessment of the following Charles Sturt Graduate Learning Outcome/s (https://student.csu.edu.au/study/glo):
- Information and Research Literacies (Knowledge) - Charles Sturt Graduates demonstrate that disciplinary knowledge is developed through research and evidence.
- Information and Research Literacies (Skill) - Charles Sturt Graduates demonstrate the skills required to locate, access and critically evaluate existing information and data.
- Information and Research Literacies (Application) - Charles Sturt Graduates synthesize

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and apply information and data to different contexts to facilitate planning, problem solving and decision making.

- Professional Practice (Knowledge) - Charles Sturt Graduates possess the knowledge and understanding of the discipline and the nature of professionalism required for the given profession or discipline in contemporary societies.
- Professional Practice (Skill) - Charles Sturt Graduates demonstrate discipline-specific technical capabilities and self-appraisal required for a beginning practitioner or professional.
- Professional Practice (Application) - Charles Sturt Graduates exercise professionalism, initiative and judgement in decision making, actions and evaluation in professional practice at the level of a beginning practitioner or professional.
- Lifelong Learning (Knowledge) - Charles Sturt Graduates anticipate lifelong learning requirements post-graduation.
- Lifelong Learning (Skill) - Charles Sturt Graduates seek and employ feedback to reflect on performance and outcomes in order to develop as an individual and professional.
- Lifelong Learning (Application) - Charles Sturt Graduates reflect on personal capabilities and develop habits of self-directed learning that will extend beyond student life.

MARKING CRITERIA AND STANDARDS

Criteria	HD	DI	CR	PS	FL
Lab 1 Introduction to AWS IAM (20 marks)	The lab has been completed successfully. The screenshots show all of the main steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has been completed successfully. The screenshots show most of the main steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has been completed. The screenshots show some steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has been completed partially. The screenshots show some steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has not been completed no or few screenshots were provided. Each screenshot does not show a full screen showing your user login name and the date and time on your computer and/ or missing a screenshot showing the Interact2 site with your name and the date and time on your computer.
Lab 2 Build your VPC and Launch a Web Server (20 marks)	The lab has been completed successfully. The screenshots show all of the main steps in the lab. Each screenshot shows a full screen showing your user	The lab has been completed successfully. The screenshots show most of the main steps in the lab, including the last steps. Each screenshot	The lab has been completed. The screenshots show some steps in the lab, including the last steps. Each screenshot shows a full screen showing your user	The lab has been completed partially. The screenshots show some steps in the lab. Each screenshot shows a full screen showing your user login name and the	The lab has not been completed no or few screenshots were provided. Each screenshot does not show a full screen showing your user login name and the date and time on

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Criteria	HD	DI	CR	PS	FL
	login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	your computer and/or missing a screenshot showing the Interact2 site with your name and the date and time on your computer.
Lab 3 Introduction to Amazon EC2 (20 marks)	The lab has been completed successfully. The screenshots show all of the main steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has been completed successfully. The screenshots show most of the main steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has been completed. The screenshots show some steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has been completed partially. The screenshots show some steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	The lab has not been completed no or few screenshots were provided. Each screenshot does not show a full screen showing your user login name and the date and time on your computer and/or missing a screenshot showing the Interact2 site with your name and the date and time on your computer.
Lab 5	The lab has been	The lab has been	The lab has been	The lab has been	The lab has not been

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Criteria	HD	DI	CR	PS	FL
Build a Database Server (20 marks)	completed successfully. The screenshots show all of the main steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	completed successfully. The screenshots show most of the main steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	completed. The screenshots show some steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	completed partially. The screenshots show some steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	completed no or few screenshots were provided. Each screenshot does not show a full screen showing your user login name and the date and time on your computer and/ or missing a screenshot showing the Interact2 site with your name and the date and time on your computer.
Lab 6 Scale & Load Balance your Architecture (20 marks)	The lab has been completed successfully. The screenshots show all of the main steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a	The lab has been completed successfully. The screenshots show most of the main steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your	The lab has been completed. The screenshots show some steps in the lab, including the last steps. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot	The lab has been completed partially. The screenshots show some steps in the lab. Each screenshot shows a full screen showing your user login name and the date and time on your computer. Includes a screenshot showing the	The lab has not been completed no or few screenshots were provided. Each screenshot does not show a full screen showing your user login name and the date and time on your computer and/ or missing a screenshot showing the Interact2 site

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Criteria	HD	DI	CR	PS	FL
	screenshot showing the Interact2 site with your name and the date and time on your computer.	computer. Includes a screenshot showing the Interact2 site with your name and the date and time on your computer.	showing the Interact2 site with your name and the date and time on your computer.	Interact2 site with your name and the date and time on your computer.	with your name and the date and time on your computer.

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PRESENTATION

IMPORTANT

Screenshots not showing your user login name and the date and time on your computer or Labs missing a screenshot showing the Interact2 site with your name and the date and time on your computer will be awarded zero marks.

Your report should use the following presentation standards:

- Use Calibri, or a similar font, in 11 or 12 point type.
- All diagrams and images are to be embedded in the document.
- All text should be left-justified.
- Each page must have a header or footer with your name and student number. Page numbers must be shown in the footer of each page, except on the title page.

Submit your report as a Word (docx) or LibreOffice Writer (odt) document through Turnitin.

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Assessment item 4 - Cloud Plan Development

Value: 25%
Due Date: 24-May-2023
Return Date: 16-Jun-2023
Group Assessment: No
Submission method options: Alternative submission method

TASK

The core element of this assignment is to develop and deploy an application concept to the Cloud with features of innovation, planning and implementation. Your task is to utilise the skills learnt in Assessments 2 and 3 and to research how to deploy your application to the Cloud, how to structure the Cloud Architecture and which Cloud Applications would be utilised in the deployment.

Think of yourself as an entrepreneur and devise a cloud-based business of your choice. Plan this business from start-up to harvest. Choose a Cloud Service Provider, and ensure the Cloud Service Provider has all the cutting-edge services and applications available for deployment. Then, develop your Cloud Architecture using your Cloud Service Provider and describe the Cloud Applications provided by your Cloud Service Provider that your business will implement. Include comprehensive diagrams of the Cloud architecture.

Cloud Application Concepts would include but are not limited to, a supermarket, or other online shops, a holiday booker, online Takeaway food services and so on. It is only limited by your imagination and the suitability of utilising a wide range of Cloud applications. Show which Cloud Services and Applications your chosen Cloud Service Provider offers and where you would use them.

Write a comprehensive report with the following headings and features:

- Introduction (5 marks)
- Cloud Application Concept and Cloud Service Provider (15 marks)
- Cloud Architecture (40 marks)
- Cloud Applications (30 marks)
- Conclusion (5 marks)
- References (5 marks)

Your report should have a word count of 3500 words ± 10%. It must be in your own words and should be precise but complete and informative. No marks will be awarded for any answer containing more than 10% direct quotes. All references must be properly cited and compiled at the end of the document. APA 7th ed. reference style (https://student.csu.edu.au/study/referencing-at-csu) must be used.

Refer to the **marking criteria and standards** to better understand the requirements.

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RATIONALE

SUBJECT LEARNING OUTCOMES

This assessment task will assess the following learning outcome/s:

- be able to compare and evaluate the ability of different cloud computing architectures to meet a set of given business requirements.
- be able to evaluate a set of business requirements to determine suitability for a cloud computing delivery model.
- be able to identify and design an ICT Risk Management strategy for a cloud computing delivery plan to meet business requirements.
- be able to critically analyse business requirements to plan a migration to a cloud model.
- be able to compare and critique Service Level Agreements (SLA) that meet the business requirements for a cloud computing plan

GRADUATE LEARNING OUTCOMES

This task also contributes to the assessment of the following Charles Sturt Graduate Learning Outcome/s (https://student.csu.edu.au/study/glo):

- Information and Research Literacies (Knowledge) - Charles Sturt Graduates demonstrate that disciplinary knowledge is developed through research and evidence.
- Information and Research Literacies (Skill) - Charles Sturt Graduates demonstrate the skills required to locate, access and critically evaluate existing information and data.
- Information and Research Literacies (Application) - Charles Sturt Graduates synthesize and apply information and data to different contexts to facilitate planning, problem solving and decision making.
- Professional Practice (Knowledge) - Charles Sturt Graduates possess the knowledge and understanding of the discipline and the nature of professionalism required for the given profession or discipline in contemporary societies.
- Professional Practice (Skill) - Charles Sturt Graduates demonstrate discipline-specific technical capabilities and self-appraisal required for a beginning practitioner or professional.
- Professional Practice (Application) - Charles Sturt Graduates exercise professionalism, initiative and judgement in decision making, actions and evaluation in professional practice at the level of a beginning practitioner or professional.
- Lifelong Learning (Knowledge) - Charles Sturt Graduates anticipate lifelong learning requirements post-graduation.
- Lifelong Learning (Skill) - Charles Sturt Graduates seek and employ feedback to reflect on performance and outcomes in order to develop as an individual and professional.
- Lifelong Learning (Application) - Charles Sturt Graduates reflect on personal capabilities and develop habits of self-directed learning that will extend beyond student life.

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MARKING CRITERIA AND STANDARDS

Criteria	HD	DI	CR	PS	FL
Introduction (5 marks)	The introduction provides a succinct, detailed and relevant description of the report.	The introduction provides a detailed, relevant description of the report.	The introduction provides a relevant description of the report.	The introduction provides some relevant description of the report.	The introduction is missing or not relevant.
Cloud Application Concept and Cloud Service Provider (15 marks)	The concept is a suitable application for Cloud development and lends itself to a wide range of Cloud applications. The Cloud Service Provider has all the latest Cloud applications and services available.	The concept is a suitable application for Cloud development and lends itself to a considerable range of Cloud applications. The Cloud Service Provider has all the latest Cloud applications and services available.	The concept is a suitable application for Cloud development and lends itself to many Cloud applications. The Cloud Service Provider has all the latest Cloud applications and services available.	The concept is a suitable application for Cloud development and lends itself to some Cloud applications. The Cloud Service Provider has most of the latest Cloud applications and services available.	The concept is not a suitable application for Cloud development and/or does not lend itself to a wide range of Cloud applications. The Cloud Service Provider is not suitable for this type of deployment.
Cloud Architecture (40 marks)	Cloud Architecture utilises several resources offered by the cloud. All of the utilised resources are appropriately justified. Includes comprehensive	Cloud Architecture utilises several resources offered by the cloud. Most of the utilised resources are appropriately justified. Includes diagrams to	Cloud Architecture utilises several resources offered by the cloud. Some of the utilised resources are appropriately justified. Includes diagrams to	Cloud Architecture utilises some computing resources offered by the cloud. Some of the utilised resources are briefly justified. Includes a diagram to	Cloud Architecture is missing and/or does not utilise and/or does not justify the use of any cloud resources and/ or is missing diagrams that reflect the

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Criteria	HD	DI	CR	PS	FL
	diagram/s to reflect architecture.	reflect architecture.	reflect architecture.	reflect the architecture.	architecture.
Cloud Applications (30 marks)	Cloud Applications are comprehensively described. All the applications are cloud-native, properly justified, and fit for their purpose.	Cloud Applications are described in detail. Some of the applications are cloud-native. All applications are correctly justified and fit for their purpose.	Cloud Applications are adequately described, justified and fit for their purpose.	Cloud Applications are briefly described and justified.	Cloud Applications are missing, are mostly not justified or not fit for their purpose.
Conclusion (5 marks)	The conclusion comprehensively captures the main features of the report.	The conclusion captures in detail captures the main features of the report.	The conclusion adequately captures the main features of the report.	The conclusion captures the main features of the report.	The conclusion is missing the main features of the report.
References (5 marks)	All the report findings and proposals are backed by supporting authoritative references that are correctly cited and compiled at the end of the report using the APA 7th format.	Most of the report findings and proposals are backed by supporting authoritative references that are correctly cited and compiled at the end of the report using the APA 7th format.	Some of the report findings and proposals are backed by supporting references that are mostly correctly cited and compiled at the end of the report using the APA 7th format.	Few of the report findings and proposals are backed by supporting references that are cited and compiled at the end of the report using the APA 7th format.	References are missing and/or improperly cited and/or of poor quality.

Up to 2 marks may be deducted for poor presentation, spelling and grammar.

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PRESENTATION

Your report should use the following presentation standards:

- Use Calibri, or a similar font, in 11 or 12 point type.
- All diagrams and images are to be embedded in the document.
- All text should be left-justified.
- Each page must have a header or footer with your name and student number. Page numbers must be shown in the footer of each page, except on the title page.

Submit your report as a Word (docx) or LibreOffice Writer (odt) document through Turnitin.

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Assessment item 5 - Final Exam

Value: 50%
Due Date: To be advised. Your exam timetable (http://student.csu.edu.au/study/exams/exam-timetable) will be released via the Student Portal. Check dates for the exam period and your responsibilities (http://student.csu.edu.au/study/exams).
Reading time is 10 minutes
Duration (excluding Technology Allowance): 2 hours writing time
15 minutes technology allowance
Exam Type: Online exam
Submission method options: Interact2
Invigilated: Yes

EXAM PENALTIES

Exam Penalties

The penalty for late submission of an exam will **only apply to exam options (such as Turnitin) that do not include an auto-submit function.** It will be a deduction of the maximum marks allocated for the exam equal, in percentage terms, to the extent of the late submission. The extent of the late submission will be determined with reference to the duration of the exam, including all allowances.

Example 1.
An exam with 120 minutes (2 hours) of writing time, 10 minutes of reading time and a 30 minute technology allowance is an exam of 160 minutes duration. If a student submits after 200 minutes, the 40 minutes of excess time represents 25% of the total duration and they would therefore be deducted 25% of the maximum marks available for the subject.

Example 2.
An exam with 2 days (48 hours) of writing time. If a student submits after 60 hours, the 12 hours of excess time represents 25% of the total duration and they would therefore be deducted 25% of the maximum marks available for the subject.

An example of the calculation would be:
Maximum marks allocated = 50
Penalty for being 25% in excess of the total duration = 12.5 marks (so, a score of 40/50 becomes 27.5/50 and a score of 25/50 becomes 12.5/50).

Note that the penalties for late submission of an online exam are different to the standard penalties for late submission of an assessment task covered in the **Assessment Information** section below.

REQUIREMENTS

Your exam will be an open book, time-limited online exam with invigilation conducted by CSU staff via Zoom. You will need access to a webcam and microphone. The exam will be timetabled as per normal and you will be notified of your scheduled time via the exams office. The exam questions will be available from an Interact 2 test within your Interact 2 site. The link

to your exam within Interact 2 will become active at the time specified in the exam timetable. Once you have completed your exam, you will submit your answers to the online test as per the details below. Detailed information about online proctored exams is available from the following link:

[https://www.csu.edu.au/current-students/learning-resources/information-planning/exams/online-invigilated (https://www.csu.edu.au/current-students/learning-resources/information-planning/exams/online-invigilated)](https://www.csu.edu.au/current-students/learning-resources/information-planning/exams/online-invigilated)

What you can have in your online Zoom exam

- One desktop computer or laptop.
- Working built-in or external webcam and microphone.
- Photo ID.
- More than one browser opened to sit your exam.
- Other documents/applications opened on your computer/laptop.
- Have a bottle of water.
- Prepare a sufficient number of blank A4 pages to plan answers and work through questions.
- Books and notes.
- Only use the chat function in Zoom to let your invigilator know if you're having any technical problems or need to use the bathroom. Chat with other students will be disabled.

The time allocated to complete the exam is 10 minutes reading time + 2 hours writing time + 15 minutes technology allowance. The technology allowance gives you extra time to deal with the different test conditions (e.g., making allowances for typing speed, slow internet, etc.). You are allowed to answer questions in your test for the whole allocated time. The test will be automatically submitted when that time is up. It is your responsibility to ensure that questions are completed by that stage.

- Multiple choice questions will be randomised.
- Text based questions can be typed directly into the allocated text field in the i2 test.
- You can NOT handwrite answers and cannot upload external files.
- The exam will disable copy/paste and spell checker.

[Academic integrity is important (https://www.csu.edu.au/current-students/learning-resources/build-your-skills/academic-integrity)](https://www.csu.edu.au/current-students/learning-resources/build-your-skills/academic-integrity). Thus various checks will be used to look for academic misconduct. Written answers will be processed by Turnitin to look for similarities to web sources and other students' submissions. Uploaded files will be compared for similarities. IP addresses will be recorded to detect collusion and impersonation. You may be interviewed to explain why you answered questions in certain ways. Penalties for academic misconduct are severe. Also, people who make money from academic misconduct do often resort to blackmail to make more money from their victims.

The sample exam is a guide to the style and format of your final exam. Additionally, there will be an example test to help you become familiar with how the i2 test system works.

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The basic format of the exam is:

- Ten (10) questions that will be in multiple-choice, True/False format; (10 Marks)
- Eight (6) short answer questions; (30 Marks)
- Two (2) Design Questions that set out a scenario for a Cloud Services problem. (10 Marks)

You must pass the exam in order to pass this subject.

RATIONALE

SUBJECT LEARNING OUTCOMES

This assessment task will assess the following learning outcome/s:

- be able to compare and evaluate the ability of different cloud computing architectures to meet a set of given business requirements.
- be able to evaluate a set of business requirements to determine suitability for a cloud computing delivery model.
- be able to identify and design an ICT Risk Management strategy for a cloud computing delivery plan to meet business requirements.
- be able to critically analyse business requirements to plan a migration to a cloud model.
- be able to compare and critique Service Level Agreements (SLA) that meet the business requirements for a cloud computing plan

GRADUATE LEARNING OUTCOMES

This task also contributes to the assessment of the following Charles Sturt Graduate Learning Outcome/s (https://student.csu.edu.au/study/glo):

- Academic Literacy and Numeracy (Knowledge) - Charles Sturt Graduates understand the use and structure of appropriate language in written, oral, visual, mathematical, and multi-modal communication.
- Information and Research Literacies (Knowledge) - Charles Sturt Graduates demonstrate that disciplinary knowledge is developed through research and evidence.
- Digital Literacies (Knowledge) - Charles Sturt Graduates understand professional, social and cultural implications of the global use of technology.
- Ethics (Knowledge) - Charles Sturt Graduates understand ethical approaches such as rights, utilitarianism and virtue ethics and the need for moral awareness and reflection on moral values.
- Professional Practice (Knowledge) - Charles Sturt Graduates possess the knowledge and understanding of the discipline and the nature of professionalism required for the given profession or discipline in contemporary societies.
- Lifelong Learning (Knowledge) - Charles Sturt Graduates anticipate lifelong learning requirements post-graduation.
- Indigenous Cultural Competence (Knowledge) - Charles Sturt Graduates understand specific cultural and historical patterns that have structured Indigenous lives in the past and the ways in which these patterns continue to be expressed in contemporary Australia.
- Global Citizenship (Knowledge) - Charles Sturt Graduates understand the impact of

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culture and global issues on professional practice.

- Sustainable Practices (Knowledge) - Charles Sturt Graduates demonstrate a multidisciplinary knowledge that empowers graduates to understand and critically analyse the challenges of balancing the social, economic and environmental factors essential for ecological sustainability.

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MARKING CRITERIA AND STANDARDS

Criteria	HD	DI	CR	PS
Students will be required to complete a series of multiple-choice questions (20 questions work 1 mark each) by selecting the most appropriate responses from a selection of four choices. Questions will assess students' knowledge in all topics	Select correct answers for a minimum of 85% of the multiple-choice questions.	Select correct answers for between 75% and 84% of the multiple-choice questions.	Select correct answers for between 65% and 74% of the multiple-choice questions.	Select correct answers for between 50% and 64% of the multiple-choice questions.
Responses to the short answer questions demonstrate knowledge, understanding and skills in all topics	To meet this level you will attain a cumulative mark between 85%-100% for this section of the examination that consists of X short answer questions with X marks available for each. Overall, in meeting this level you will demonstrate comprehensive knowledge of the concepts through your descriptions, explanations and discussion of the content.	To meet this level you will attain a cumulative mark between 75%-84% for this section of the examination that consists of X short answer questions with X marks available for each. Overall, in meeting this level you will demonstrate well-considered knowledge of the concepts through your descriptions and explanations of the content.	To meet this level you will attain a cumulative mark between 65%-74% for this section of the examination that consists of X short answer questions with X marks available for each. Overall, in meeting this level you will demonstrate a sound knowledge of the concepts through your descriptions, explanations and discussion of the content.	To meet this level you will attain a cumulative mark between 50%-64% for this section of the examination that consists of X short answer questions with X marks available for each. Overall, in meeting this level you will demonstrate knowledge of the concepts through your descriptions of the content.
Responses to	To meet this	To meet this	To meet this	To meet this

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Criteria	HD	DI	CR	PS
the design questions demonstrate knowledge and understanding of all topics and show the ability to apply knowledge to a particular problem	level you will attain a cumulative mark between 85%-100% for this section of the examination that consists of 5 case study questions with 10 marks available for each. Overall, in meeting this level you will demonstrate comprehensive knowledge of the concepts through your descriptions, explanations and discussion of the content. Graphs, tables and images will be correctly and clearly labelled and explanations will link to the diagrams as needed.	level you will attain a cumulative mark between 75%-84% for this section of the examination that consists of 5 case study questions with 10 marks available for each. Overall, in meeting this level you will demonstrate well-considered knowledge of the concepts through your descriptions and explanations of the content. Graphs, tables and images will be correctly and clearly labelled and explanations will link to the diagrams as needed.	level you will attain a cumulative mark between 65%-74% for this section of the examination that consists of 5 case study questions with 10 marks available for each. Overall, in meeting this level you will demonstrate a sound knowledge of the concepts through your descriptions and explanations of the content. Graphs, tables and images will be labelled and descriptions will link to the diagrams as needed.	level you will attain a cumulative mark between 50%-64% for this section of the examination that consists of 5 case study questions with 10 marks available for each. Overall, in meeting this level you will demonstrate knowledge of the concepts through your descriptions and explanations of the content. Graphs, tables and images will be labelled.

MATERIAL PROVIDED BY THE UNIVERSITY

Test in interact 2

WHAT STUDENTS CAN BRING TO THE EXAM

The following is permitted for your exam:

- All/any reference materials

1. Reliable internet connection and modern browser
2. Zoom application
3. Webcam and microphone

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SAMPLE EXAM PAPER

You are encouraged to complete this subject's [sample exam (https://interact2.csu.edu.au/webapps/blackboard/content/launchAssessment.jsp?course_id=_67379_1&content_id=_5698174_1&mode=cpview)](https://interact2.csu.edu.au/webapps/blackboard/content/launchAssessment.jsp?course_id=_67379_1&content_id=_5698174_1&mode=cpview) in preparation for the end-of-session exam.

Services & Support

Your [Student Portal (http://student.csu.edu.au/)](http://student.csu.edu.au/) tells you can how you can seek services and support. These include study, admin, residential, library, careers, financial, and personal support.

Develop your study skills

Develop your writing, referencing, English language, numeracy, computer, and other study skills with a range of free [Academic Skills (https://www.csu.edu.au/current-students/studying/support/academic-skills-help)](https://www.csu.edu.au/current-students/studying/support/academic-skills-help) services and resources, available online and on campus to help you succeed at university.

Library Services

Access a wide range of scholarly eBooks, journals articles and multimedia through your [Library (https://library.csu.edu.au/)](https://library.csu.edu.au/). Learn how to find the best information to excel in your study.

We're here to help with easy-to-use Library Resource Guides, videos, workshops, individual appointments and online chat.

Assessment and Exam Information

Academic Integrity

Play your part in maintaining academic integrity at our university. Complete your compulsory [Academic Integrity at Charles Sturt University (https://www.csu.edu.au/current-students/studying/subject-enrolment/types-of-subjects/academic-integrity)](https://www.csu.edu.au/current-students/studying/subject-enrolment/types-of-subjects/academic-integrity) subject. This subject will help you understand our Academic Integrity Policy, our expectations of you, and the support services available to help you meet your academic obligations.

You'll learn how to avoid plagiarism, cheating, contract cheating, and collusion. Charles Sturt University treats breaches of academic integrity seriously. Turnitin is used to check your submitted work for plagiarism or contract cheating.

You can also use Turnitin to [check for plagiarism (https://www.csu.edu.au/current-students/studying/assignments-and-exams/assignments/plagiarism)](https://www.csu.edu.au/current-students/studying/assignments-and-exams/assignments/plagiarism) in your assessments before submission.

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Referencing

Referencing is an important component of academic work. All assessment tasks should be appropriately referenced. The American Psychological Association (APA) referencing style is the default referencing style to be used in students' assessment work. If your subject requires a different style to be used, this will be stated in the assessment requirements. Get referencing style guides and help with referencing from Charles Sturt's Referencing webpage (https://student.csu.edu.au/learning-skills/referencing).

How to submit your Assessment and Exam items

POSTAL ASSESSMENT - SUBMISSION PROCESS

Under normal circumstances postal submissions will not be accepted for any of the assessments required.

HAND DELIVERED ASSESSMENT - SUBMISSION PROCESS

Under normal circumstances hand delivered submissions will not be accepted for any of the assessments required.

ALTERNATIVE ASSESSMENT - SUBMISSION PROCESS

Assessment tasks that are not completed through the Subject site need to be submitted electronically via Turnitin site by the due date. Turnitin password details for this subject will be given by your lecturer.

Unless advised otherwise, all Turnitin submissions are due by midnight (AEST) of the date specified. Please note that the time and the date of your Turnitin submission will be used to determine your official submission time.

All textual elements within an assessment must be submitted in a format that is readable by Turnitin. Specific exceptions, where an assessment requires the insertion of image based evidence of workings will be outlined in the context of the assessment. Students that deliberately attempt to insert content of assessments in a format that is not readable by Turnitin may be subject to Academic misconduct investigations.

Additional Submission Information:
It is recommended that **your name**, **student ID** and **page number** are included in the header or footer of every page of any assignment. You are also required to rename your assignment file before you submit via Turnitin as per below protocol:

SUBJECT CODE, SI, SURNAME, STUDENT ID, ASSESSMENT NUMBER, SESSION.

Example – ITC561 SMI PATEL 11554466 A3 202330.doc

INTERACT2 - ONLINE EXAM SUBMISSION PROCESS

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Your online exam will be delivered through an **Interact2** test.

You may have previously completed an online quiz using this system. You will access your Interact2 test using your online web browser, such as Chrome.

Please ensure that you have turned off any pop-up blocking software, as this may block your online exam from opening in Interact2.

Once you login to your Interact2 subject site, you will see an option on the left-hand side of your screen that will take you to your online exam page.

Before your exam is scheduled to start, a link will appear on this page. You may have to refresh this page.

Interact2 will automatically submit your exam for you when the time is up or you can submit your exam yourself if you finish early.

Please ensure you write your own responses within the text field provided. You will not be able to cut and paste text into the exam respond field.

Extensions

It is best to complete assessment items by the due date. However, when something unavoidable comes up an extension may be possible. The following principles are used when processing extensions

1. Flexibility is available for most assessment tasks. However, there are a few time-dependent tasks that cannot be rescheduled in a practical way. These are identified within the item itself.

2. For in-session assessment items, an extension request for up to three (3) calendar days can be made by emailing your subject coordinator directly before the due date. In your email please state the reason why you need more time as well as what precisely you are requesting. Supporting documentation is not required. If an extension is requested in the above format with a valid reason and your request does not disadvantage other students, the extension will be approved.

3. Once per session, you can additionally request one automatic extension for an applicable in-session assessment of up to 7 days via the special consideration form: https://apps.csu.edu.au/specialcons/. Supporting documentation is not required.

4. For in-session assessment items, further requests for extension beyond the previous two points are possible. These requests must be made via the special consideration form: https://apps.csu.edu.au/specialcons/; before the due date; and include supporting documentation. Acceptable reasons are given in the Assessment Flexibility Procedure https://policy.csu.edu.au/document/view-current.php?id=514. Each request will be considered on a case-by-case basis. The request may not be granted. The maximum extension possible is usually seven (7) calendar days. However, for extreme cases where solutions to the assessment item have not been released yet, longer extension periods may be possible.

5. If you receive an extension, then you should expect the assessment item and its feedback to be returned later. If you submit later than the extended due date you will receive late penalties as per guidelines below.

6. Unless your extension permits otherwise, submissions received 10 days after the original

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due date will receive zero.

7. For end of session exams, you can request a deferred exam via https://apps.csu.edu.au/specialcons/. This request must be made within 3 working days of the date of exam and must include supporting documentation. Acceptable reasons are given in the Assessment Flexibility Procedure https://policy.csu.edu.au/document/view-current.php?id=514. For medical issues, a CSU medical certificate is required. If deferred exam (DX) is awarded then your exam is moved to the next DX/AE examination period. In order to preserve exam integrity and manage the logistics of exams, the timing of a deferred exam is heavily restricted.

How to apply for special consideration

Academic regulations provide for special consideration to be given if you suffer misadventure or extenuating circumstances during the session (including the examination period) which prevents you from meeting acceptable standards or deadlines. Find the form on the Student Portal Special Consideration, Misadventure (https://www.csu.edu.au/current-students/studying/support/special-consideration) page.

Penalties for late submission

The penalty for late submission of an assessment task will be:

Policy change summary

Policy / Clause	Current wording	Suggested wording
Assessment Policy 49	Subject Coordinators have discretion to extend a deadline for submission of an assessment work by up to seven days, without requiring the student to apply for special consideration, if satisfied that unexpected circumstances will prevent the student from meeting the deadline.	Students may request an extension to the due date for assessment work: 1. Extensions of up to seven calendar days will be granted for in-session assessment work where this will not delay the student's final grade in the subject. 2. Longer extensions may be granted or referred to a special consideration application, at the discretion of the subject coordinator.
Assessment Policy – glossary		In-session assessment – assessment work where the due date is before the end of the session/teaching period or, where the session/teaching period includes an exam period, before the beginning of the exam period.

Assessment Flexibility Procedure 12-15	Extensions of deadlines for submitting assessment work	
	(12) The Assessment Policy (https://policy.csu.edu.au/document/view-current.php?id=301) states that a student may ask the relevant Subject Coordinator for an extension of up to seven days of the deadline for an assignment, where unexpected circumstances are likely to prevent them from meeting the deadline.	1. The Assessment Policy (https://policy.csu.edu.au/document/view-current.php?id=301) states that a student may request an extension to deadlines for in-session assessment tasks.
	(13) Such requests must be submitted in writing:	2. Such requests must be submitted:

	1. as soon as the student realises the need for an extension, and
	    2. before the original deadline for submission of the work.
		1. in writing or as otherwise advised in the subject outline: and
		    2. before the due date in the subject outline.

	(14) The Subject Coordinator has discretion to grant the request without supporting documents.	3. Extensions of up to seven calendar days beyond the published due date will be approved, subject to clause 15.
	1. Where the Subject Coordinator, school or faculty decides that all requests for extensions in a subject must be submitted through the online special consideration process, the subject outline must state this requirement.	4. Requests for extensions may be refused or referred to special consideration applications where:

	(15) Alternatively, the Subject Coordinator may require the student to submit the request using the online special consideration request form, which will require them to attach supporting documents as explained in the 'Special consideration' section below.	1. the extension is for more than seven calendar days
		    2. the request is received on or after the due date
		    3. the extension would delay the student's final grade (these requests should be escalated to the Head of School through special consideration)
		    4. the assessment task is an exam, further or additional assessment, laboratory/field/clinical work or a time dependent task that is not practicable to reschedule unless

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			there are reasons for special consideration

Resubmission

Under normal circumstances resubmission of assessment items will not be accepted for any of the assessments required in this subject.

Feedback processes

Feedback for assessment items will be provided by subject lecturer/s. You may also approach the lecturer for further clarification or feedback on the assignment.

Assessment return

You should normally expect your marked assessment to be returned to you by the Return Date, if your assessment was submitted on time. If you submitted your assessment on time but have not received the marks by the return date, you should make inquiries in the first instance to the subject lecturer. If subject lecturer is not available please contact respective Course Coordinator.

Student Feedback & Learning Analytics

Evaluation of subjects

Charles Sturt University values constructive feedback and relies on high response rates to Subject Experience Surveys (SES) to enhance teaching. Responses are fed back anonymously to Subject Coordinators and Heads of Schools to form the basis for subject enhancement and recognition of excellence in teaching. Schools report on their evaluation data; highlighting good practice and documenting how problems have been addressed. You can view a summary of survey results via the Student Portal SES Results (https://www.csu.edu.au/current-students/studying/subject-enrolment/subject-experience-survey) page.

We strongly encourage you to complete your online Subject Experience Surveys. You will be provided with links to your surveys via email when they open three [3] weeks before the end of session.

Changes and actions based on student feedback

This subject has been developed over several years and we have included the feedback from students in previous years when preparing this subject. In particular, this year the subject has been changed in response to feedback from last year's class in the following ways:

- The online lectures are now recorded and made available through YouTube, in addition to the Adobe Connect recordings. This provides you with the opportunity to review lecture content at times outside of the scheduled lecture times.

- A set of current and relevant web links and resources that can be used during the subject, as well as at work.
- More time spent discussing the planning the migration of business applications and services to the Cloud.

Learning analytics

Learning Analytics refers to the collection and analysis of student data for the purpose of improving learning and teaching. It enables the University to personalise the support we provide our students. All Learning Analytics activities will take place in accordance with the Charles Sturt University Learning Analytics Code of Practice. For more information, please visit the University's Learning Analytics (https://www.csu.edu.au/division/learning-teaching/learning-technology/evaluation-review-and-analytics) website.

Data about your activity in the Interact2 site and other learning technologies for this subject will be recorded and can be reviewed by teaching staff to inform their communication, support and teaching practices.

Policies & Regulations

This subject outline should be read in conjunction with all academic policies and procedures. Please refer to the collated list of policies and regulations relevant to studying your subject(s) (https://www.csu.edu.au/current-students/studying/student-admin/policies) which includes links to Charles Sturt University's Policy Library (https://about.csu.edu.au/our-university/publications-policy/policy)- the sole authoritative source of official academic and administrative rules, policies and procedures of the University.

Subject Outline as a reference document

This Subject Outline is an accurate and historical record of the curriculum and scope of your subject. Charles Sturt University's Course and Subject Information Procedure expects that you retain a copy of the Subject Outline for future use, including for accreditation and other professional purposes.

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