COURSE OUTLINE

CSC303 Cloud and DevOps

School: School of Science, Technology and Engineering

2026 | Trimester 2

UniSC Moreton Bay	BLENDED LEARNING	Most of your course is on campus but you may be able to do some components of this course online.

Please go to unisc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

This course teaches you how to use cloud services (IaaS, PaaS, SaaS) and DevOps practices to enable organisations to be more agile and adaptive. DevOps involves Development and Operations collaborating to build, evolve and operate rapidly-changing systems at scale. You will learn DevOps principles and some key DevOps practices, such as agile planning, continuous integration, continuous delivery, and continuous monitoring. You will gain experience at implementing automated continuous integration pipelines to build, test, analyse and deploy web-based applications.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Asynchronous Learning Material	2hrs	Week 1	12 times
Tutorial/Workshop 1 – On-campus workshop	2hrs	Week 1	12 times

1.3. Course Topics

- What is DevOps?
- The Cloud as a Platform
- Operations
- Overall Architecture
- Building and Testing
- Deployment
- Monitoring
- Security and Security Audits
- Supporting Multiple Datacentres
- Implementing a Continous Deployment Pipeline for Enterprises
- Migrating to Microservices
- Operations as a Process
- The Future of DevOps

2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...		GRADUATE QUALITIES Completing these tasks successfully will contribute to you becoming...
1	Demonstrate advanced knowledge of DevOps principles, methods, practices in terms of Industry application.	Knowledgeable
2	Select, develop and adapt cloud platforms to perform tasks, use tools and techniques to facilitate DevOps methodology.	Empowered
3	Analyse, evaluate and configure cloud infrastructure to set up automation environments.	Creative and critical thinker
4	Utilise cloud infrastructure for continuous deployment and integration of software.	Empowered
5	Deploy and manage the process of DevOps utilising a range of automation and project management tools.	Engaged

5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1. Pre-requisites

CSC200 and CSC202

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

Not applicable

5.5. Microcredential Information

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Students will complete individual weekly workshop activities under the guidance of the workshop facilitator, providing opportunities for rapid formative feedback throughout the trimester.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Portfolio	Individual	20%	200 words per submission	Refer to Format	Online Submission
All	2	Artefact - Technical and Scientific, and Written Piece	Individual	40%	Code plus 1500 words	Week 12	Online Assignment Submission with plagiarism check
All	3	Examination - not Centrally Scheduled	Individual	40%	2.5 hours	Exam Period	Online Assignment Submission with plagiarism check

All - Assessment Task 1: Reflective practice

GOAL:	Complete a number of activities submitted over the course of the trimester to reflect on your comprehension while forming a portfolio of devops solutions.
PRODUCT:	Portfolio
AUTHORSHIP STATEMENT:	
FORMAT:	You will submit five responses to stimulus materials. Each submission will be the equivalent of less than 200 words of text, code or documentation. Due Weeks 3, 5, 7, 9, and 11
CRITERIA:	**No.** — **Learning Outcome assessed** 1 Select, develop and adapt cloud platforms — 2 2 Analyse, evaluate and configure cloud infrastructure — 1 3
GENERIC SKILLS:	

All - Assessment Task 2: DevOps Mastery

GOAL:	Develop your ability to design, build, and deliver products using automation.
PRODUCT:	Artefact - Technical and Scientific, and Written Piece
AUTHORSHIP STATEMENT:	
FORMAT:	You will work on a case study and apply your knowledge of DevOps to design, justify and develop solutions to meet the given requirements.
CRITERIA:	**No.** — **Learning Outcome assessed** 1 Select, develop and adapt cloud platforms — 2 2 Analyse, evaluate and configure cloud infrastructure — 3 3 Utilise cloud infrastructure for continuous deployment and integration — 4 4 Deploy and manage the process of DevOps — 5
GENERIC SKILLS:	

All - Assessment Task 3: Exam

GOAL:	Assess your ability to independently apply your skills and knowledge to solve problem-based questions within a set time limit.
PRODUCT:	Examination - not Centrally Scheduled
AUTHORSHIP STATEMENT:	
FORMAT:	This examination consists of a set of questions based on learning materials and workshop activities.
CRITERIA:	

No.		Learning Outcome assessed
1	Comparison and evaluation of cloud platforms to perform tasks	1 2
2	Analyse, evaluate and configure cloud infrastructure	3

GENERIC SKILLS:	

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

You need regular access to the resource(s) below. Many texts are available as ebooks through the Library at no additional cost.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Recommended	Len Bass,Ingo M. Weber,Liming Zhu	2015	DevOps: A Software Architect's Perspective	n/a	n/a

8.2. Specific requirements

Not applicable

9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

Eligibility for Supplementary Assessment Your eligibility for supplementary assessment in a course is dependent of the following conditions applying: The final mark is in the percentage range 47% to 49.4% The course is graded using the Standard Grading scale You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The Student Charter sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- UniSC Student Central
- UniSC Adelaide Student Central