



## COURSE OUTLINE

# ICT321 Architecture and Systems Integration

**Course Coordinator:** Judith Watson ([jwatson@usc.edu.au](mailto:jwatson@usc.edu.au)) **School:** School of Science, Technology and Engineering

2021 | Semester 2

USC Sunshine Coast

**BLENDED  
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

Online

**ONLINE**

You can do this course without coming onto campus.

*Please go to the USC website 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

In this capstone course you will build upon the ICT knowledge gained throughout the degree program by developing skills in enterprise architecture planning (EAP) and in enterprise application integration (EAI). Using EAP, you will learn to create architectures that define and describe the data, applications, and technology needed to support organisations. In applying EAI, you will gain experience in creating strategic business solutions using Web services and middleware to integrate the functionality of an organisation's existing applications, commercial packaged applications, and new code.

### 1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
<b>BLENDED LEARNING</b>			
<b>Tutorial/Workshop 1</b> – In-class tutorial	2hrs	Week 2	11 times
<b>Online</b> – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times
<b>ONLINE</b>			
<b>Tutorial/Workshop 1</b> – Interactive zoom tutorial	2hrs	Week 2	11 times
<b>Online</b> – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times

### 1.3. Course Topics

- Enterprise Information Architecture
- Service-Oriented Architecture
- Web Services
- Enterprise Application Integration

## 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	GRADUATE QUALITIES
On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...
1 Assess different techniques in enterprise architecture and system integration.	Knowledgeable Empowered
2 Evaluate and apply different system integration solutions to given cases.	Knowledgeable Empowered
3 Create a working system with the knowledge of system integration for given requirements.	Creative and critical thinker

## 5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

### 5.1. Pre-requisites

ICT112 and (ICT211 or ICT220 or ICT221)

### 5.2. Co-requisites

Not applicable

### 5.3. Anti-requisites

Not applicable

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

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

Task 1 is a test involving basic concepts, principles, and skills of enterprise architecture, which will be the basis for the understanding of EAP and EAI.

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	Written Piece	Individual	20%	2 hours	Week 5	Online Assignment Submission with plagiarism check
All	2	Artefact - Creative, and Written Piece	Individual	40%	1500 plus code	Week 13	Online Assignment Submission with plagiarism check
All	3	Examination - Centrally Scheduled	Individual	40%	2 hours	Exam Period	Online Assignment Submission with plagiarism check

**All - Assessment Task 1:** Enterprise Architecture Test

<b>GOAL:</b>	To demonstrate your knowledge of Analysis and Design at an enterprise level.							
<b>PRODUCT:</b>	Written Piece							
<b>FORMAT:</b>	This is an individual assessment. Answer a set of questions about enterprise architectural analysis and design.							
<b>CRITERIA:</b>	<table border="1"> <thead> <tr> <th>No.</th> <th>Learning Outcome assessed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Assessment of various solutions and techniques in enterprise architecture</td> </tr> </tbody> </table>	No.	Learning Outcome assessed	1	Assessment of various solutions and techniques in enterprise architecture	<table border="1"> <thead> <tr> <th>Learning Outcome assessed</th> </tr> </thead> <tbody> <tr> <td>1</td> </tr> </tbody> </table>	Learning Outcome assessed	1
No.	Learning Outcome assessed							
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Learning Outcome assessed								
1								

**All - Assessment Task 2:** Systems Integration in Practice

<b>GOAL:</b>	To demonstrate ability to integrate heterogeneous systems into a cohesive application.													
<b>PRODUCT:</b>	Artefact - Creative, and Written Piece													
<b>FORMAT:</b>	You will be given a case study and will develop an application to suit the case study's functionality needs. An individual project explaining aspects of enterprise information systems and integrating a number of local and online services and resources.													
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2														
3														
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**All - Assessment Task 3:** Final examination

<b>GOAL:</b>	To demonstrate your knowledge and understanding of the course content	
<b>PRODUCT:</b>	Examination - Centrally Scheduled	
<b>FORMAT:</b>	A two-hour exam to be held during the scheduled examination period. The date and time of the exam will be advised by Student Administration during the semester. The examination will cover all lectures and tutorial materials.	

CRITERIA:	No.	Learning Outcome assessed
	1	Assessment of various solutions and techniques in service-oriented architecture <span style="float: right;">1 2</span>
	2	Assessment of various solutions and techniques in system integration <span style="float: right;">1 2</span>

## 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. Directed study hours may vary by location. 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 Blackboard site– Please log in as soon as possible.

### 8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

REQUIRED?	AUTHOR	YEAR	TITLE	PUBLISHER
Recommended	Mario Godinez, Eberhard Hechler, Klaus Koenig, Steve Lockwood, Martin Oberhofer, Michael Schroeck	2010	The Art of Enterprise Information Architecture: A Systems-Based Approach for Unlocking Business Insight	IBM Press

### 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 Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

### 10.2. Assessment: Additional Requirements

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 submission of assessment tasks may be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

### 10.4. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the [Learning Advisers](#) web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or [studentcentral@usc.edu.au](mailto:studentcentral@usc.edu.au).

### 10.5. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to [Student Hub](#), email [studentwellbeing@usc.edu.au](mailto:studentwellbeing@usc.edu.au) or call 07 5430 1226.

### 10.6. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, , injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, [AccessAbility Services](#) can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to [Student Hub](#), email [AccessAbility@usc.edu.au](mailto:AccessAbility@usc.edu.au) or call 07 5430 2890.

### 10.7. 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
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website: <http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

### 10.8. General Enquiries

#### In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **USC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

**Tel:** +61 7 5430 2890

**Email:** [studentcentral@usc.edu.au](mailto:studentcentral@usc.edu.au)