

# ICT115 Introduction to Systems Design

**School:** School of Science, Technology and Engineering

2022 | Semester 2

UniSC Sunshine Coast  
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.

Online

**ONLINE**

You can do this course without coming onto campus.

*Please go to [usc.edu.au](http://usc.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

All businesses rely on effective systems to collect and maintain business data. The design and interaction of these systems is paramount for businesses to effectively utilise their data. This course introduces the foundation concepts of systems design, including the collection and modelling of system requirements and processes, engaging stakeholders and integrating new systems into larger architectures.

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

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
<b>BLENDED LEARNING</b>			
<b>Learning materials</b> – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times
<b>Tutorial/Workshop 1</b> – In-class tutorial	2hrs	Week 1	13 times
<b>ONLINE</b>			
<b>Learning materials</b> – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times
<b>Tutorial/Workshop 1</b> – Interactive zoom tutorial	2hrs	Week 2	11 times

### 1.3. Course Topics

Introduction to systems analysis and design  
Analysing the business case  
Managing systems projects  
Requirements engineering  
Data and process modeling  
Object modeling  
Development strategies  
User interface design  
Data design  
System architecture  
Managing system implementation  
System support and security

## 2. What level is this course?

100 Level (Introductory)

Engaging with discipline knowledge and skills at foundational level, broad application of knowledge and skills in familiar contexts and with support. Limited or no prerequisites. Normally, associated with the first 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	Use the foundational concepts of Systems Analysis & Design	Knowledgeable
2	Discuss and demonstrate fundamental Systems Analysis & Design concepts	Creative and critical thinker Engaged
3	Demonstrate knowledge and the utilisation of modern Systems Analysis & Design strategies and techniques.	Knowledgeable Creative and critical thinker 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

Not applicable

### 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

Weekly online quizzes will be used over 11 weeks to cement learnings from the week's online content and to provide formative feedback. Feedback from the quizzes will enable students to understand how well they are grasping content and keeping up with the course. An online test will be run in week 5 so that students have early summative feedback about their progress.

## 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	Examination - not Centrally Scheduled	Individual	25%	1 hour	Week 5	Online Test (Quiz)
All	2	Report	Group	30%	1,500 words	Week 10	Online Assignment Submission with plagiarism check
All	3	Examination - Centrally Scheduled	Individual	45%	2 hours	Exam Period	Online Test (Quiz)

### All - Assessment Task 1: Online test

GOAL:	The purpose of this task is for you to demonstrate your knowledge of the fundamental concepts of systems planning, analysis and design.				
PRODUCT:	Examination - not Centrally Scheduled				
FORMAT:	Online test with a combination of multiple-choice and short answer questions.				
CRITERIA:	No.				Learning Outcome assessed
	1	Comprehension and knowledge of requisite course material.			1 3
GENERIC SKILLS:	Communication, Problem solving				

### All - Assessment Task 2: Systems Design Case Study Presentation and Report

<b>GOAL:</b>	The purpose of this task is to build on the skills developed in Task 1 in applying systems planning, analysis and design concepts to a case study. This task will help to further develop your understanding of foundational Systems Analysis and Design concepts and practices in business environments. This assessment you will write a report.		
<b>PRODUCT:</b>	Report		
<b>FORMAT:</b>	Case study report and diagrams (~1,500 words). This report will follow a standard business report format. You will be investigating how you might advise an organisation on updating a system. The organisation's details will be provided in a case study. You will need to provide a report on how you might design a system that will fit the organisation's requirements. Further details will be available on Canvas in the assignment specification		
<b>CRITERIA:</b>	<b>No.</b>		<b>Learning Outcome assessed</b>
	1	To demonstrate applied understanding of Systems Analysis, Design and Architecture.	1
	2	Presentation and organisation of presentation and report	3
	3	Analysis of what systems analysis and design are applicable to this case study.	2
	4	Application of systems analysis and design concepts to the case study.	3
	5	Recommendation for future use of systems analysis	2
	6	Clear summary of relevant information	1 2
<b>GENERIC SKILLS:</b>	Communication, Collaboration, Problem solving, Organisation		

### All - Assessment Task 3: Final Examination

<b>GOAL:</b>	Building on Task 1 and Task 2, the purpose of this task is to obtain a comprehensive view of systems design in terms of definitions and concepts, techniques, and solving business problems.		
<b>PRODUCT:</b>	Examination - Centrally Scheduled		
<b>FORMAT:</b>	A final examination will be held in the examination period. This two-hour examination will consist of a set of multiple-choice questions, diagrams and short answer questions to test understanding and application of concepts. This is an individual assessment.		
<b>CRITERIA:</b>	<b>No.</b>		<b>Learning Outcome assessed</b>
	1	Comprehend, apply and communicate definitions and concepts used in systems design.	1
	2	Comprehend and discuss the position of system design in organisations	2
	3	Define a business problem and present the systems design to solve the problem	3
<b>GENERIC SKILLS:</b>	Communication, Problem solving, Applying technologies, Information literacy		

## 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

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	EDITION	PUBLISHER
Required	Scott Tilley	2019	Systems Analysis and Design	12th ed	Cengage

### 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:

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. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: [07 5430 1168](tel:0754301168) or using the [SafeZone](#) app. For general enquires contact the SafeUniSC team by phone [07 5456 3864](tel:0754563864) or email [safe@usc.edu.au](mailto:safe@usc.edu.au).

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call [07 5430 1226](tel:0754301226) or email [studentwellbeing@usc.edu.au](mailto:studentwellbeing@usc.edu.au).

## 10.5. 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).

## 10.6. 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.

## 10.7. 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.

## 10.8. 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>

## 10.9. 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.

## 10.10. General Enquiries

### In person:

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