UniSC

COURSE OUTLINE

ICT221 Object-Oriented Programming

School: School of Science, Technology and Engineering

2026 | Trimester 1

UniSC Sunshine Coast
UniSC Moreton Bay
UniSC Adelaide

| 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, unless your program has specified a mandatory onsite requirement. |

Please go to 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

This course introduces you to object-oriented programming, which is the most widely-used modern programming paradigm. You will learn to design larger programs by structuring them into multiple classes, with a variety of relationships between those classes, such as association, composition, and inheritance. These techniques will be applied to the building of sophisticated graphical user interfaces (GUI).

1.2. How will this course be delivered?

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

1.3. Course Topics

- Objects and Classes
- Encapsulation, Inheritance, Polymorphism
- Event-driven programming and GUI
- I/O operations
- Common data structures

2. What level is this course?

> 200 Level (Developing)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

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 Demonstrate knowledge of advanced object-oriented design for software development.	Knowledgeable
2 Apply industry-standard software development, collaboration, and communication tools.	Empowered
3 Proficiently communicate and coordinate software design activities through comprehending and writing effective reports, design documentation and specifications.	Engaged
4 Build and evaluate systems for complex computing problems to meet specified stakeholder needs.	Empowered

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

> ICT112

5.2. Co-requisites

> Not applicable

5.3. Anti-requisites

> Not applicable

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

Knowledge of simple imperative programming (loops, conditionals, functions, arrays) is assumed as a prerequisite of this course.

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

The first few weeks of computer workshops will include practical Java programming tasks that give instant feedback. In addition to this, you will be given various online exercises to do that are auto-marking, so that you can see which concepts you have mastered and which concepts you are finding difficult. You will then be able to ask your tutor in the workshops about ways of solving those difficulties.

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	20%	90 minutes	Week 6	Online Submission
All	2	Artefact - Technical and Scientific, and Written Piece	Individual	40%	One Java program and 500-1000 word report	Week 11	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: Programming knowledge test

GOAL:	Examine your knowledge of designing and creating software.
PRODUCT:	Examination - not Centrally Scheduled
FORMAT:	Quiz and short answer questions regarding the design and implementation of Java programs addressing the given requirements.

CRITERIA:	No.		Learning Outcome assessed
	1	Demonstrated knowledge of Java programming and OOP.	① ②

GENERIC SKILLS:	Problem solving, Applying technologies

All - Assessment Task 2: Programming assignment

GOAL:	Design, document and create software.
PRODUCT:	Artefact - Technical and Scientific, and Written Piece
FORMAT:	Individual project incorporating design, documentation and programming, plus a short report (500-1000 words) documenting the design, implemented functionality and limitations of your software, and reflection on your software development process. The source code should be hosted and submitted via an online GIT repository.

CRITERIA:	No.		Learning Outcome assessed
	1	Good use of OOD and OOP	① ④
	2	Robust and functional GUI with good use of event-driven programming	① ④
	3	Comprehensive unit tests that cover the main use cases of the class	②
	4	Adherence to recommended Java coding style (naming conventions, code formatting, commenting, etc.);	② ③
	5	Good use of exception handling to catch and report any I/O or other errors	① ②
	6	Clear explanation for the design and implementation via written communication	③

GENERIC SKILLS:	Communication, Problem solving, Applying technologies

All - Assessment Task 3: Final examination

GOAL:	Demonstrate knowledge of course content	
PRODUCT:	Examination - Centrally Scheduled	
FORMAT:	Individual assessment comprising questions from the information obtained from the lecture materials and the workshop activities.	
CRITERIA:	**No.**	**Learning Outcome assessed**
	1 Demonstrated knowledge of OOD, OOP, and Java development.	① ④
GENERIC SKILLS:	Problem solving, Applying technologies	

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	Y. Daniel Liang	2017	Introduction to Java Programming, Brief Version, Global Edition	11th ed	Pearson

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

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. 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 or using the SafeZone app. For general enquires contact the SafeUniSC team by phone 07 5456 3864 or email 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 or email 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.

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 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 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