

# ICT703 Programming

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

2025 | Trimester 2

UniSC Sunshine Coast  
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.

*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

This course shows how simple computer programs allow us to read, clean, transform, and visualise real-world data in many different ways. It presents the key concepts and skills of programming, which are an essential foundation for all kinds of scripting and programming tasks in many different application areas, such as business, science, engineering, gaming and web development.

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

| ACTIVITY  | HOURS | BEGINNING WEEK | FREQUENCY |
|---|-------|----------------|-----------|
| <b>BLENDED LEARNING</b>                                     |       |                |           |
| <b>Learning materials</b> – Asynchronous Learning material  | 2hrs  | Week 1         | 12 times  |
| <b>Tutorial/Workshop 1</b> – Synchronous on campus workshop | 2hrs  | Week 1         | 12 times  |
| <b>Seminar</b> – On campus seminar                          | 1hr   | Week 1         | 2 times   |
| <b>ONLINE</b>   |       |                |           |
| <b>Learning materials</b> – Asynchronous Learning material  | 2hrs  | Week 1         | 12 times  |
| <b>Tutorial/Workshop 1</b> – Synchronous Zoom workshop      | 2hrs  | Week 1         | 12 times  |
| <b>Seminar</b> – Online seminar                             | 1hr   | Week 1         | 2 times   |

### 1.3. Course Topics

Writing and translating pseudocode

Writing code using simple and complex statements including loops, selection, conditional statements

## 2. What level is this course?

700 Level (Specialised)

Demonstrating a specialised body of knowledge and set of skills for professional practice or further learning. Advanced application of knowledge and skills in unfamiliar contexts.

### 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   | Compare the different types of data available in programming languages and explain their usage.   | Knowledgeable  |
| 2   | Use data analysis and visualisation techniques to gain business insights.                         | Empowered  |
| 3   | Create scripts and programs that can extract and manipulate data and produce a variety of outputs | Creative and critical thinker<br>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

Must be enrolled in a Postgraduate program.

#### 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

Formative feedback will be provided through discussion of weekly practical topics in tutorial in addition to the feedback provided through weekly practice tests that will be available on Canvas.

#### 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        | Quiz/zes                              | Individual          | 25%         | 50 min  | Week 5                | Online Test (Quiz)                                 |
| All           | 2        | Artefact - Technical and Scientific   | Individual          | 50%         | Programming script length can vary. No minimum or maximum length. | Week 9                | Online Assignment Submission with plagiarism check |
| All           | 3        | Examination - not Centrally Scheduled | Individual          | 25%         | 1 hour  | Week 12               | Online Submission                                  |

**All - Assessment Task 1:** Programming Quiz

| <b>GOAL:</b>           | To demonstrate your understanding of the course content in Weeks 1 - 4   |                           |  |                           |   |  |   |   |  |   |   |  |   |  |
|------------------------|--|---------------------------|--|---------------------------|---|--|---|---|--|---|---|--|---|--|
| <b>PRODUCT:</b>        | Quiz/zes   |                           |  |                           |   |  |   |   |  |   |   |  |   |  |
| <b>FORMAT:</b>         | Questions relating to coding and programming skills obtained from learning material, workshop activities and additional readings specified in Weeks 1 - 4.   |                           |  |                           |   |  |   |   |  |   |   |  |   |  |
| <b>CRITERIA:</b>       | <table> <tr> <th>No.</th><th></th><th>Learning Outcome assessed</th></tr> <tr> <td>1</td><td>Creative approaches to solving the problem</td><td>2</td></tr> <tr> <td>2</td><td>Correctness of the program and output.</td><td>2</td></tr> <tr> <td>3</td><td>Application of relevant programming concepts</td><td>1</td></tr> </table> | No.                       |  | Learning Outcome assessed | 1 | Creative approaches to solving the problem | 2 | 2 | Correctness of the program and output. | 2 | 3 | Application of relevant programming concepts | 1 |  |
| No.                    |  | Learning Outcome assessed |  |                           |   |  |   |   |  |   |   |  |   |  |
| 1                      | Creative approaches to solving the problem   | 2                         |  |                           |   |  |   |   |  |   |   |  |   |  |
| 2                      | Correctness of the program and output.   | 2                         |  |                           |   |  |   |   |  |   |   |  |   |  |
| 3                      | Application of relevant programming concepts   | 1                         |  |                           |   |  |   |   |  |   |   |  |   |  |
| <b>GENERIC SKILLS:</b> |  |                           |  |                           |   |  |   |   |  |   |   |  |   |  |

**All - Assessment Task 2:** Programming Assignment

| <b>GOAL:</b>           | You will be writing code to develop a solution for a given business scenario.  |                           |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
|------------------------|--|---------------------------|--|---------------------------|---|--|---|---|--|---|---|--|---|---|--|---|--|
| <b>PRODUCT:</b>        | Artefact - Technical and Scientific  |                           |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| <b>FORMAT:</b>         | This is an individual assessment. Script to be written in the relevant programming language covered in the course. Further details will be available on the LMS.   |                           |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| <b>CRITERIA:</b>       | <table> <tr> <th>No.</th><th></th><th>Learning Outcome assessed</th></tr> <tr> <td>1</td><td>Creative approaches to solving the problem</td><td>3</td></tr> <tr> <td>2</td><td>Application of relevant programming concepts and adherence to the recommended programming styles</td><td>3</td></tr> <tr> <td>3</td><td>Insightful analysis of the given problem</td><td>2</td></tr> <tr> <td>4</td><td>Correctness of the program and output. Program documentation</td><td>3</td></tr> </table> | No.                       |  | Learning Outcome assessed | 1 | Creative approaches to solving the problem | 3 | 2 | Application of relevant programming concepts and adherence to the recommended programming styles | 3 | 3 | Insightful analysis of the given problem | 2 | 4 | Correctness of the program and output. Program documentation | 3 |  |
| No.                    |  | Learning Outcome assessed |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| 1                      | Creative approaches to solving the problem   | 3                         |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| 2                      | Application of relevant programming concepts and adherence to the recommended programming styles   | 3                         |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| 3                      | Insightful analysis of the given problem   | 2                         |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| 4                      | Correctness of the program and output. Program documentation   | 3                         |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |
| <b>GENERIC SKILLS:</b> |  |                           |  |                           |   |  |   |   |  |   |   |  |   |   |  |   |  |

**All - Assessment Task 3:** Final Exam

| <b>GOAL:</b>           | To obtain a comprehensive view of software development in terms of definitions and concepts, techniques, and producing software driven solutions to business problems.  |                           |  |                           |   |   |   |  |
|------------------------|---|---------------------------|--|---------------------------|---|---|---|--|
| <b>PRODUCT:</b>        | Examination - not Centrally Scheduled   |                           |  |                           |   |   |   |  |
| <b>FORMAT:</b>         | The examination will build on Tasks 1 and 2. This one-hour examination will consist of short answer questions to test understanding and application of concepts. This is an individual assessment.                |                           |  |                           |   |   |   |  |
| <b>CRITERIA:</b>       | <table> <tr> <th>No.</th><th></th><th>Learning Outcome assessed</th></tr> <tr> <td>1</td><td>Comprehend, apply and communicate definitions and concepts used in software development</td><td>1</td></tr> </table> | No.                       |  | Learning Outcome assessed | 1 | Comprehend, apply and communicate definitions and concepts used in software development | 1 |  |
| No.                    |   | Learning Outcome assessed |  |                           |   |   |   |  |
| 1                      | Comprehend, apply and communicate definitions and concepts used in software development   | 1                         |  |                           |   |   |   |  |
| <b>GENERIC SKILLS:</b> |   |                           |  |                           |   |   |   |  |

## 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

There are no required/recommended resources for this course.

### 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. 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)