COIT20245 *Introduction to Programming*
Term 1 - 2021

Profile information current as at 26/04/2024 10:17 am

All details in this unit profile for COIT20245 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview
In this unit, you will learn how to program using the Java programming language. It is assumed that you have little or no programming experience so you will be guided through the basics of application development using classes and objects. You will learn about the parts of a program including variables, types, and methods, and learn how to take input and produce output. A key aspect of this unit is practical, hands-on, simple application development and testing which you will do in an industry standard integrated development environment (IDE).

Details
Career Level: *Postgraduate*
Unit Level: *Level 8*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Anti-requisite: COIT29222 Programming Principles
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2021

- Brisbane
- Melbourne
- Online
- Rockhampton
- Sydney

Attendance Requirements
All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website
This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Postgraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Practical Assessment**
Weighting: 20%
2. **Practical Assessment**
Weighting: 30%
3. **Online Test**
Weighting: 50%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student feedback.

Feedback
Learning resources are in need of improvement.

Recommendation
Review the teaching model employed in the unit and the textbook that is being used.

Feedback from Unit Coordinator reflection on assessment performance.

Feedback
More emphasis should be placed on documentation, design and testing.

Recommendation
Incorporate additional material on documentation, design and testing into the lecture content.

Feedback from Teaching team.

Feedback
Online tutorial classes are too large for effective interaction.

Recommendation
Reduce class sizes for online tutorials.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Develop professionally documented and thoroughly tested object-oriented applications using an industry standard integrated development environment (IDE)
2. Apply procedural concepts (methods, iteration, selection) to the realisation of object behaviour
3. Implement standard algorithms such as searching, sorting and sequential processing for arrays and lists of objects
4. Employ the stream abstraction to process records contained in sequential text files
5. Demonstrate command of the subset of the programming language presented in this unit, including its syntax, type system, scope rules, and libraries.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles.
ACS members can use the tool MySFIA to build a skills profile at
https://www.acs.org.au/professionalrecognition/mysfia-b2c.html
This unit contributes to the following workplace skills as defined by SFIA. The SFIA code is included:

- Programming/Software Development (PROG)
- Testing (TEST)

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level • Introductory Level • Intermediate Level • Graduate Level ◦ Professional Level ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Practical Assessment - 20%		•			
2 - Practical Assessment - 30%	•	•	•		
3 - Online Test - 50%			•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Knowledge	◦	◦	◦	◦	◦
2 - Communication					
3 - Cognitive, technical and creative skills	◦	◦	◦	◦	◦
4 - Research					
5 - Self-management					
6 - Ethical and Professional Responsibility					
7 - Leadership					
8 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Practical Assessment - 20%	◦	◦	◦		◦			
2 - Practical Assessment - 30%	◦	◦	◦		◦			
3 - Online Test - 50%	◦	◦	◦					

Textbooks and Resources

Textbooks

COIT20245

Prescribed

Java How to Program : Early Objects Edition
11th Edition (2018)
Authors: Paul Deitel and Harvey Deitel
Pearson Education
Upper Saddle River , NJ , USA
ISBN: 9780134743356
Binding: Paperback

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- JDK, http://www.oracle.com/technetwork/java/javase/downloads/index.html
- NetBeans, http://netbeans.org/downloads/index.html
- TextPad, http://www.textpad.com/download/index.html

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Bruce McKenzie Unit Coordinator
b.mckenzie@cqu.edu.au

Schedule

Week 1 - 08 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Object Technology and Java	Chapter 1	

Week 2 - 15 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Java Applications	Chapter 2	

Week 3 - 22 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Classes, Objects, Methods and Strings	Chapter 3	

Week 4 - 29 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Control Statements: Part 1	Chapter 4	

Week 5 - 05 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Control Statements: Part 2	Chapter 5	

Vacation Week - 12 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 19 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Methods: A Deeper Look	Chapter 6	**Assignment one** Due: Week 6 Friday (23 Apr 2021) 11:59 pm AEST

Week 7 - 26 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Arrays and ArrayLists	Chapter 7	

Week 8 - 03 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Arrays and ArrayLists (Continue from Week 7)	Chapter 7	

Week 9 - 10 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Searching, Sorting and Big O	Chapter 19	

Week 10 - 17 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Strings, Characters and Regular Expressions	Chapter 14	

Week 11 - 24 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Files and Streams	Chapter 15	**Assignment Two** Due: Week 11 Friday (28 May 2021) 11:59 pm AEST

Week 12 - 31 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Revision and Project Preparation	Lecture Notes from Weeks 1 - 12	

Review/Exam Week - 07 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 14 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Assignment one

Assessment Type
Practical Assessment

Task Description
A simple Java program which uses basic Java concepts such as declaration of variables, input and output, and control statements such selection and repetition. See Moodle for the full specification of the assignment.

Assessment Due Date
Week 6 Friday (23 Apr 2021) 11:59 pm AEST

Return Date to Students
Week 8 Friday (7 May 2021)

Weighting
20%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Apply procedural concepts (methods, iteration, selection) to the realisation of object behaviour

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Self-management

2 Assignment Two

Assessment Type
Practical Assessment

Task Description
A menu program will be supplied in which students will complete the method stubs and their own methods. The students will also create a class in which and array of objects will be implemented. See Moodle for the full specification of the assignment.

Assessment Due Date
Week 11 Friday (28 May 2021) 11:59 pm AEST

Return Date to Students
Review/Exam Week Friday (11 June 2021)

Weighting
30%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Develop professionally documented and thoroughly tested object-oriented applications using an industry standard integrated development environment (IDE)
- Apply procedural concepts (methods, iteration, selection) to the realisation of object behaviour
- Implement standard algorithms such as searching, sorting and sequential processing for arrays and lists of objects

Graduate Attributes

- Knowledge
- Communication

- Cognitive, technical and creative skills
- Self-management

3 Take Home Test

Assessment Type
Online Test

Task Description
A take home test will be made available during the exam in which student will have 24 hours to complete the test.

Assessment Due Date

Return Date to Students

Weighting
50%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Implement standard algorithms such as searching, sorting and sequential processing for arrays and lists of objects
- Employ the stream abstraction to process records contained in sequential text files
- Demonstrate command of the subset of the programming language presented in this unit, including its syntax, type system, scope rules, and libraries.

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem