School of Information and Physical Sciences

COURSE OUTLINE

OVERVIEW

Course Description

This course is an introduction to an object-oriented programming language. The course introduces the fundamentals of analysing a problem and then implementing a solution as a computer software system using an object-oriented language. Students learn about problem-solving strategies, top-down program development and programming style. The course provides a basic introduction to data abstraction and object-oriented analysis and design. Emphasis is placed on programming and testing.

Academic Progress Requirements

Nil

Contact Hours

Callaghan
Computer Lab
Face to Face On Campus
2 hour(s) per week(s) for 12 week(s) starting Week 1

Online Activity
Online
2 hour(s) per week(s) for 12 week(s) starting Week 1

Singapore NAIHE
Computer Lab
Face to Face On Campus
2 hour(s) per week(s) for 12 week(s) starting Week 1

Lecture
Face to Face On Campus
2 hour(s) per week(s) for 12 week(s) starting Week 1

Online
Computer Lab
Online
2 hour(s) per week(s) for 12 week(s) starting Week 1

Online Activity
Online
2 hour(s) per week(s) for 12 week(s) starting Week 1

Sydney Elizabeth Street
Computer Lab
Face to Face On Campus
2 hour(s) per week(s) for 12 week(s) starting Week 1

Online Activity
Online
2 hour(s) per week(s) for 12 week(s) starting Week 1

Unit Weighting	10
Workload	Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

CONTACTS

Course Coordinator	**Callaghan, Singapore NAIHE, Online and Sydney Elizabeth Street**
	Dr Shaleeza Sohail
	Shaleeza.Sohail@newcastle.edu.au
	0240553334
	Consultation: email for appointment
Teaching Staff	Other teaching staff will be advised on the course Canvas site.
School Office	**School of Information and Physical Sciences**
	SR233, Social Sciences Building
	Callaghan
	CESE-SIPS-Admin@newcastle.edu.au
	+61 2 4921 5513
	9am-5pm (Mon-Fri)
	School of Information and Physical Sciences
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SYLLABUS

Course Content	1. Programming language syntax
	2. Elementary programming concepts
	3. Control structures
	4. Object oriented programming basics
	5. Methods and classes
	6. Documentation techniques
	7. Testing and debugging techniques
	8. Arrays
Course Learning Outcomes	**On successful completion of this course, students will be able to:**
	1. Comprehend the concepts of object-oriented programming
	2. Comprehend a programming problem and design a solution
	3. Code a solution to a problem
	4. Comprehend and implement selection and loop structures
	5. Comprehend and implement classes and methods
	6. Comprehend and implement different input/output solutions
	7. Comprehend and implement arrays
	8. Test and document program solutions
	9. Explore advanced topics in object-oriented programming
Course Materials	Recommended Text: - Java: An Introduction to Problem Solving and Programming, Walter Savitch, Pearson

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:
Course Assessment Requirements:
- Assessment 5 - Formal Examination: Minimum Grade / Mark Requirement - Students must obtain a specified minimum grade / mark in this assessment item to pass the course. Students whose overall mark in the course is 50% or more, but who score less than 40% in the compulsory item and thus fail to demonstrate the required proficiency, will be awarded a Criterion Fail grade, which will show as FF on their formal transcript. However, students in this position who have scored at least 25% in the compulsory item will be allowed to undertake a supplementary 'capped' assessment in which they can score at most 50% of the possible mark for that item.

ASSESSMENTS

This course has 5 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Quizzes	Every Sunday, 11:59pm during weeks 1-6, 8-11	Individual	10%	1, 2, 3, 4, 5, 6, 7, 8, 9
2	Programming Assignment 1	week 8, Fri, 15 March 2024, 11:59pm	Individual	15%	1, 2, 3, 4, 5, 6
3	Programming Assignment 2	Week 12, Fri, 12 April 2024, 11:59pm	Individual	25%	1, 2, 3, 4, 5, 6, 7, 8, 9
4	Mid Term Exam	Week 7, more details in Canvas	Individual	15%	1, 2, 3, 4, 5, 6
5	Final Exam*	Per university timetable	Individual	35%	1, 2, 3, 4, 5, 6, 7, 8, 9

* This assessment has a compulsory requirement.

Late Submissions   The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Quizzes

Assessment Type	Quiz
Purpose	Online Quizzes
Description	Multiple Choice Questions
Weighting	10%
Due Date	Every Sunday, 11:59pm during weeks 1-6, 8-11
Submission Method	Online
Assessment Criteria	In Canvas
Return Method	Not Returned
Feedback Provided	Online

Assessment 2 - Programming Assignment 1

Assessment Type	Written Assignment
Purpose	Written Assignment
Description	Programming task (more details will be available in Canvas). Students will have around 3 weeks to complete the assignment.
Weighting	15%
Due Date	week 8, Fri, 15 March 2024, 11:59pm
Submission Method	Online
Assessment Criteria	In Canvas
Return Method	Not Returned
Feedback Provided	Online - 2 weeks after submission.

Assessment 3 - Programming Assignment 2

Assessment Type	Written Assignment
Purpose	Written Assignment
Description	Programming task (more details will be available in Canvas).
	Students will have around 3 weeks to complete the assignment.
Weighting	25%
Due Date	Week 12, Fri, 12 April 2024, 11:59pm
Submission Method	Online
Assessment Criteria	
Return Method	Not Returned
Feedback Provided	Online - 2 weeks after submission.

Assessment 4 - Mid Term Exam

Assessment Type	In Term Test
Description	
Weighting	15%
Due Date	Week 7, more details in Canvas
Submission Method	Online
Assessment Criteria	In Canvas
Return Method	Not Returned
Feedback Provided	Online - 2 weeks after submission.

Assessment 5 - Final Exam

Assessment Type	Formal Examination
Description	
Weighting	35%
Compulsory Requirements	Pass requirement 40% - Must obtain 40% in this assessment item to pass the course..
Due Date	
Submission Method	Formal Exam
Assessment Criteria	In Canvas
Return Method	Not Returned
Feedback Provided	No Feedback
Opportunity to Reattempt	Students WILL be given the opportunity to reattempt this assessment.

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory

		development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:
- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face to face meetings or supervision.

On Campus students will attend labs on campus.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

Oral Interviews (Vivas)

As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the Oral Examination (viva) Procedure. In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the Student Conduct Rule.

Academic Misconduct

All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to https://policies.newcastle.edu.au/document/view-current.php?id=35.

Adverse Circumstances

The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:
1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;
3. you are requesting a change of placement; or
4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at:
https://policies.newcastle.edu.au/document/view-current.php?id=236

Important Policy Information

The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures that support a safe and respectful environment at the University.

Graduate attribute	University of Newcastle Master of IT Graduate Profile Statements	Taught	Practised	Assessed	Level of capability
1	Identify and analyse complex problems within information technology and design solutions to these problems at a highly skilled level	Y	Y	Y	2
2	Depth of technical information in at least one facet of information technology sufficient for a career in information technology together with the capacity to continue developing relevant knowledge, skills and expertise throughout their careers	Y	Y	Y	2
3	Manage projects in aspects of information technology relevant to their field of study, including the ability to develop, manage and participate at all levels in team environments				
4	Professionalism and ethics in the context of the global information technology industry				
5	Communicate effectively through a range of verbal, written and/or presentation skills at an advanced level				
6	Apply knowledge and skills to plan and execute a substantial capstone experience or a research-based project and/or piece of scholarship				