School of Information and Physical Sciences

INFT1004: Introduction to Programming

Callaghan

Semester 1 - 2024

OVERVIEW

Course Description	This course introduces the key skills of problem solving and computer programming, including the elementary programming concepts of documentation, data elements, sequence, selection, and iteration.
Academic Progress Requirements	Nil
Contact Hours	**Callaghan** **Computer Lab *** Face to Face On Campus 2 hour(s) per week(s) for 13 week(s) starting Week 1 **Lecture** Face to Face On Campus 2 hour(s) per week(s) for 13 week(s) starting Week 1 * This contact type has a compulsory requirement.
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**
Mrs Shiva Pedram
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SYLLABUS

Course Content

1.	Programming language syntax
2.	Elementary programming concepts and structures
3.	Problem analysis techniques
4.	Program design and development
5.	Documentation techniques
6.	Testing and debugging techniques
7.	Use of programs to manipulate multimedia files

Course Learning Outcomes

On successful completion of this course, students will be able to:
1. Comprehend the concepts of programming;

2. Analyse a programming problem and design a solution;

3. Code a solution to a problem;

4. Test and document program solutions.

Course Materials

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Contact Hour Requirements:
- Computer Lab Attend 80% of sessions

Course Assessment Requirements:
- Assessment 4 - Final Examination: Pass requirement 40% - Must obtain 40% in this assessment item to pass the course.

Compulsory Placement and WHS Requirements:
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SCHEDULE

Week	Week Begins	Topic	Learning Activity	Assessment Due
1	26 Feb	Introduction	Textbook - chapter 1 Computer lab exercises	Quiz 1
2	4 Mar	Input, Processing, Output	Textbook - chapter 2 Computer lab exercises	Quiz 2
3	11 Mar	Selection structures & Introduction to Repetition	Textbook - chapter 3 and 4 Computer lab exercises	Quiz 3
4	18 Mar	Repetition & Introduction to functions	Textbook - chapter 4 and 5 Computer lab exercises Assignment 1 instructions available	Quiz 4
5	25 Mar	Revision with more Examples	Computer lab exercises Help with assignment 1 in the lab	Quiz 5
6	1 Apr	Easter Monday- No lecturer	Help with programming assignment 1 in the computer lab	
7	8 Apr	Midterm Exam		
Mid-Semester Recess				
Mid-Semester Recess				
8	29 Apr	Files and exceptions	Textbook - chapter 6 Computer lab exercises	Quiz 6/ Assignment 1 due
9	6 May	Lists and tuples	Textbook - chapter 7 Computer lab exercises Assignment 2 instructions available	Quiz 7
10	13 May	More about strings and Using packages	Textbook - chapter 8 Computer lab exercises	Quiz 8
11	20 May	More about packages	Computer lab exercises	Quiz 9
12	27 May	Object oriented concepts	Textbook - chapter 10 Computer lab exercises	Quiz 10
13	3 Jun	Revision	Help with programming assignment 2 in the computer lab	Programming assignment 2 due
Examination Period				
Examination Period				

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	Sunday, 11:59pm	Individual	10%	1, 2, 3
2	Programming assignment 1	11.59pm on Fri, week 8	Individual	15%	1, 2, 3, 4
3	Programming assignment 2	Fri, 11.59pm, week 13	Pair	20%	1, 2, 3, 4
4	Final Examination*	As scheduled in the formal examination period	Individual	40%	1, 2, 3
5	Mid Term Exam	Week 7	Individual	15%	1, 2, 3

* 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
Description	Multiple choice questions
Weighting	10%
Due Date	Sunday, 11:59pm
Submission Method	Online
Assessment Criteria	
Return Method	Not Returned
Feedback Provided	Online - .
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment.

Assessment 2 - Programming assignment 1

Assessment Type	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	11.59pm on Fri, week 8
Submission Method	Online
Assessment Criteria	Available in Canvas
Return Method	Not Returned
Feedback Provided	Online - 2 weeks after submission..
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment.

Assessment 3 - Programming assignment 2

Assessment Type	Written Assignment
Description	Programming task (more details will be available in Canvas). Students will be able to work in pairs and will have around 3 weeks to complete the assignment.
Weighting	20%
Due Date	Fri, 11.59pm, week 13
Submission Method	Online
Assessment Criteria	Available in Canvas
Return Method	Not Returned

Feedback Provided	Online - 2 weeks after submission.
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment.

Assessment 4 - Final Examination

Assessment Type	Formal Examination
Description	The final formal examination is designed to test the individual students' knowledge of the course material and their ability to describe, analyse, and hypothesise from this material.
Weighting	40%
Compulsory Requirements	Pass requirement 40% - Must obtain 40% in this assessment item to pass the course..
Due Date	As scheduled in the formal examination period
Submission Method	Formal Exam
Assessment Criteria	Details about the structure of the exam will be provided on Canvas prior to exam
Return Method	Not Returned
Feedback Provided	No Feedback - .
Opportunity to Reattempt	Students WILL be given the opportunity to reattempt this assessment.

Assessment 5 - Mid Term Exam

Assessment Type	In Term Test
Description	Details about the structure of the exam will be provided on Canvas prior to exam
Weighting	15%
Due Date	Week 7
Submission Method	Online
Assessment Criteria	
Return Method	
Feedback Provided	
Opportunity to Reattempt	Students WILL NOT 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).
Placement Requirements	This is a placement course covered by the Student Placement Policy. Refer to http://newcastle.edu.au/policy/000768.html for further information.
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.
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. 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.
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 PROFILE STATEMENTS

The following table illustrates how this course contributes towards building the skills students will need to work in their profession.

Level of capability
- • Level 1 indicates an introduction to a topic at a university level
- • Levels 2 and 3 indicate progressive reinforcement of that topic
- • Level 4 indicates skills commensurate with a graduate – entry to professional practice
- • Level 5 indicates highly specialist or professional ability

Bachelor of Information Technology

	University of Newcastle Bachelor of Information Technology Graduate Profile Statement	Taught	Practised	Assessed	Level of capability
1	Demonstrate a comprehensive understanding of the discipline of information technologies with an emphasis on net-centric applications, information management, and user requirements for ethical professional practice.	X	X	X	1
2	Apply critical reasoning and systems thinking to understand and support the operation and constraints of contemporary enterprises and their dynamic environment.	X	X	X	1
3	Work independently and collaboratively to locate, manage and organise information and resources and apply evidence-based methodologies to create, modify and maintain designs and design solutions.	X	X	X	2
4	Use creativity, problem solving skills, project management skills and technical expertise to analyse, interpret, evaluate and generate solutions to complex technical and organisational problems.	X	X	X	2
5	Demonstrate professional judgement and responsibility by communicating information technology principles, practices, standards to specialist and non-specialist audience clearly and persuasively.	X	X	X	1

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

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