COMP1000

Introduction to Computer Programming

Session 2, Special circumstance 2020

Department of Computing

Contents

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff
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Credit points
10

Prerequisites

Corequisites

Co-badged status

Unit description
This unit is an introductory computer science unit, providing a practical introduction to basic computing and programming concepts. Students gain an understanding of, and practical experience in, computer programming; practical experience in implementing informal prose descriptions of problem solutions using an imperative language; an understanding of, and practical experience in, designing, coding, testing and debugging simple algorithms; and an understanding of the principle of incremental development. Other topics include: the concept of program correctness; the differences between high-level languages, assembly languages and machine languages; the role played by compilers; and the execution of programs by computer hardware.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

ULO1: apply problem solving skills to develop algorithms that solve small to medium-sized computational problems

ULO2: design and write code to implement a program description in an imperative programming language

ULO3: use standard software engineering practices to document, debug and test their

programs

ULO4: understand and apply appropriately the concepts of variables, loops, functions, conditionals and compound data in the implementation of programmed systems

ULO5: identify and describe ethical issues in an academic environment and demonstrate active engagement in the learning process

General Assessment Information

Late Submission No extensions will be granted without an approved application for Special Consideration. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late. For example, 25 hours late in submission for an assignment worth 10 marks – 20% penalty or 2 marks deducted from the total. No submission will be accepted after solutions have been posted.

Assessment Tasks

Name	Weighting	Hurdle	Due
Module Exams	60%	No	Weeks 2-12
Major Creative Work	40%	No	Week 13

Module Exams

Assessment Type [1]: Examination
Indicative Time on Task [2]: 42 hours
Due: **Weeks 2-12**
Weighting: **60%**

A number of exams spread through the semester. Students will have the opportunity to repeat any exam to improve their mark.

On successful completion you will be able to:

- apply problem solving skills to develop algorithms that solve small to medium-sized computational problems
- design and write code to implement a program description in an imperative programming language
- use standard software engineering practices to document, debug and test their programs
- understand and apply appropriately the concepts of variables, loops, functions, conditionals and compound data in the implementation of programmed systems
- identify and describe ethical issues in an academic environment and demonstrate active engagement in the learning process

Major Creative Work

Assessment Type [1]: Programming Task
Indicative Time on Task [2]: 30 hours
Due: **Week 13**
Weighting: **40%**

A semester-long programming task where students put all their skills to work creating a game or demo.

On successful completion you will be able to:

- apply problem solving skills to develop algorithms that solve small to medium-sized computational problems
- design and write code to implement a program description in an imperative programming language
- use standard software engineering practices to document, debug and test their programs
- understand and apply appropriately the concepts of variables, loops, functions, conditionals and compound data in the implementation of programmed systems
- identify and describe ethical issues in an academic environment and demonstrate active engagement in the learning process

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

CLASSES

Each week of COMP115 has up to three hours of online lectures and a two-hour practical class. For details of days, times and rooms, consult the University timetables webpage (http://www.timetables.mq.edu.au). Practical classes commence in Week 1 and are held in the 9WW Computer Laboratories for on-campus classes and in zoom rooms for online classes (links published in iLearn).

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

- *Software Technology* (http://softwaretechnology.mattr.net.au/)
- *Learning Processing: A Beginner's Guide to Programming Images, Animation, and Interaction*, Daniel Shiffman, Morgan Kaufmann, 2nd edition, 2015

We cover a large proportion of the material in these books and it will be extremely difficult to successfully complete this unit without reading the relevant chapters. *Software Technology* is the primary source of examinable material in this unit. Furthermore, you will find the lecture material much easier to understand if you read the textbooks in advance of the lectures. The lecture schedule below lists the relevant sections of the textbooks.

The website at http://www.learningprocessing.com/ provides supplementary material that you may find useful, including tutorials on Processing, the complete code for the examples in the book, and related downloads. The Macquarie University library has a number of copies of the textbook, including some in the reserve collection. The library also has many other books on programming that you may find useful if the concepts are not adequately explained by the textbook or class material.

UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED

Web Home Page

COMP1000 will make extensive use of the iLearn course management system, including for delivery of class materials, discussion boards, online self-tests, submission of work and access to marks and feedback. Students should check the iLearn site (https://ilearn.mq.edu.au) regularly for unit updates.

Questions and general queries regarding the content of this unit, its lectures or practical classes, or its assessments should be posted to the discussion boards on the COMP1000 iLearn site. In particular, any questions which are of interest to all students in this unit should be posted to one of these discussion boards, so that everyone can benefit from the answers. Questions of a private nature should be directed to the unit teaching staff.

echo360

Any audio and screen video recordings of the lectures will be made available online at iLearn via the echo360 system.

Technology Used and Required

The practical work in this unit involves programming in the Processing language (http://processing.org) which will give students experience with features that are used in many modern programming languages. The Processing software can be downloaded free of charge for Windows, Linux and Mac OS X computers from the Processing web site. It is also installed in the 9WW Computer Laboratories.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

Assignment converted to major creative work.

Changes since First Published

Date	Description
22/07/2020	CMS changes were approved. Assignments became "major creative work". Participation removed. Nothing else changed.