



The University of Southern Queensland

## Course specification

The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.  
Please consult the web for updates that may occur during the year.

### Description: Foundation Programming

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
CSC	1401	90209	2, 2009	EXT	1.00	Toowoomba

<b>Academic group:</b>	FOSCI
<b>Academic org:</b>	FOS003
<b>Student contribution band:</b>	2
<b>ASCED code:</b>	020103

## STAFFING

Examiner: Michael de Raadt  
Moderator: Shelly Grist

## RATIONALE

Programming is relevant to both computing professionals and individuals who wish to be more than end-users. The topics in the course will allow students to learn programming in a Web context, but should also develop skills transferrable to other languages, paradigms and contexts. The course is appropriate for students wishing to have only a single exposure to programming, but is also sufficient for students intending to complete further programming instruction.

## SYNOPSIS

This course covers foundational programming knowledge (including language syntax and facilities) as well as strategies which allow programmers to apply such knowledge to solve programming problems. Students will learn to analyse and comprehend existing programs and create solutions to programming problems by generating programs which apply programming strategies covered in the course.

## OBJECTIVES

On successful completion of this course, students will be able to:

1. demonstrate understanding of the programming language knowledge covered in the course by comprehending code in existing programs (Quizzes, to a lesser degree in Assignments 1-5, Exam)
2. apply programming language knowledge covered in the course to generate programs (Assignments 1-5, Exam)
3. comprehend programming strategies covered in the course by analysing programs which demonstrate such strategies (Quizzes, to a lesser degree in Assignments 1-5, Exam)
4. create solutions to programming problems by generating programs which apply programming strategies covered in the course (Assignments 1-5, Exam)
5. demonstrate problem solving in the context of programming through designing, debugging, implementing and testing programs (Assignments 1-5, Exam)

6. demonstrate academic and professional literacy by applying computer and mathematical skills to analyse algorithms and data structures (Quizzes, Assignments 1-5, Exam)
7. demonstrate management, planning and organisational skills by judging performance of peers in assignments, and learning from feedback from peers and instructors (Assignments 1-5)

## TOPICS

	Description	Weighting (%)
1.	Programming Process, HTML and JavaScript, Sequence	10.00
2.	Values, Objects, Arrays, Operations, Dynamic typing, Roles of variables	10.00
3.	Expressions, Using Functions, User I/O, String handling	10.00
4.	Programming Strategies (Initialisation, Averaging, Divisibility, Cycle position, Number decomposition, Triangular swap)	10.00
5.	Testing, Debugging, Programming Style	10.00
6.	Selection, Iteration, Recursion	10.00
7.	Programming Strategies (Guarded exceptions, Counter controlled loops, Primed sentinel controlled loops, Validation)	10.00
8.	Writing Functions	10.00
9.	Programming Strategies (Summing, Counting, Tallying, Searching, Min/Max, Sorting)	10.00
10.	Interacting with HTML objects, Forms, Events	10.00

## TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

No required text.

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Morrison, M 2007, *Head First JavaScript*, O'Reilly, Farnham.

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	40.00
Examinations	2.00
Private Study	119.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
QUIZZES	10.00	10.00	24 Jul 2009 (see note 1)
ASSIGNMENT 1	8.00	8.00	14 Aug 2009 (see note 2)
ASSIGNMENT 2	8.00	8.00	28 Aug 2009
ASSIGNMENT 3	8.00	8.00	11 Sep 2009
ASSIGNMENT 4	8.00	8.00	25 Sep 2009
ASSIGNMENT 5	8.00	8.00	16 Oct 2009
2HR RESTRICTED EXAMINATION	50.00	50.00	END S2 (see note 3)

### NOTES

1. Quizzes are due to be completed by 11:55pm Australian Eastern Standard Time on Fridays at the end of each week.
2. As assignments are submitted electronically they are due 11:59:59pm Australian Eastern Standard Time on each due date.
3. Examination dates will be available during the Semester. Please refer to the examination timetable when published.

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
It is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.
- 2 Requirements for students to complete each assessment item satisfactorily:  
To complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.
- 3 Penalties for late submission of required work:  
If students submit assignments after the due date without (prior) approval of the examiner then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late up to ten working days at which time a mark of zero may be recorded. No assignments will be accepted after model answers have been posted.
- 4 Requirements for student to be awarded a passing grade in the course:  
To be assured of receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.

- 5 Method used to combine assessment results to attain final grade:  
The final grades for students will be assigned on the basis of the weighted aggregate of the marks obtained for each of the summative assessment items in the course.
- 6 Examination information:  
Candidates are allowed access only to specific materials during a Restricted Examination. The only materials that candidates may use in the restricted examination for this course are: writing materials (non-electronic and free from material which could give the student an unfair advantage in the examination); Students may bring a single A4 sheet of hand-written notes (double sided). The sheet must not be a photocopy or printout.
- 7 Examination period when Deferred/Supplementary examinations will be held:  
Any Deferred or Supplementary examinations for this course will be held during the next examination period.
- 8 University Regulations:  
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL <http://www.usq.edu.au/corporateservices/calendar/part5.htm> or in the current USQ Handbook.

## **ASSESSMENT NOTES**

- 9 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.
- 10 Students may be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to the USQ within 24 hours of receipt of a request to do so.
- 11 In accordance with University Policy, the Examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.
- 12 Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non directed personal study.

## **OTHER REQUIREMENTS**

- 1 Students will require access to an appropriate computer either via the student's own arrangements or a USQ study centre.
  - 2 No further assignments will be accepted for assessment purposes after assignments or sample solutions have been released, except in extenuating circumstances.
  - 3 Students will require email and internet access for this course.
  - 4 Assignment specifications are available on the course website.
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