



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: Introduction to Software Engineering

| Subject | Cat-nbr | Class | Term | Mode | Units | Campus |
|---------|---------|-------|---------|------|-------|-----------|
| CSC | 2407 | 90214 | 2, 2009 | EXT | 1.00 | Toowoomba |

| | |
|-----------------------------------|--------|
| Academic group: | FOSCI |
| Academic org: | FOS003 |
| Student contribution band: | 2 |
| ASCED code: | 020305 |

STAFFING

Examiner: Yan Li
Moderator: Aileen Cater-Steel

REQUISITES

Pre-requisite: CSC1401 or USQIT16 or Students must be enrolled in the following Program: MPIT or GCEN or GDET or METC

RATIONALE

We wish to be able to produce large software systems which are reliable and error-free, both on time and at low cost. This is an extraordinarily difficult task. The discipline of Software Engineering encompasses the theories, methods and tools that can be applied to the problem in an attempt to achieve these aims. Software practitioners must be aware of and be able to apply modern Software Engineering techniques in order to produce the best possible software.

SYNOPSIS

In this course the student will gain an understanding of the methods, tools and procedures of software engineering. Methods covered include a wide range of activities such as project planning, system and software requirements analysis, design, development, configuration management, quality assurance, testing documentation and maintenance of software. Industry standard system modelling and specification notations will be used throughout the course.

OBJECTIVES

On completion of this course students will be able to:

1. use formal and graphical system description languages for system specification (All assessment items);
2. demonstrate awareness of the major design strategies and architectures available for designing software systems (Assignment 3);
3. design appropriate program test strategies (Assignment 3, Exam);

4. demonstrate familiarity with methods for planning and managing large software projects (Assignment 3, Exam).

TOPICS

| | Description | Weighting (%) |
|----|--|---------------|
| 1. | System analysis, modelling and specification | 50.00 |
| 2. | Software design | 20.00 |
| 3. | Project planning and management | 10.00 |
| 4. | Implementation, testing and verification | 5.00 |
| 5. | Software Quality Assurance | 5.00 |
| 6. | Configuration | 5.00 |
| 7. | Maintenance | 5.00 |

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).

Introductory Book 2008, *Course CSC2407 Introduction to Software Engineering*, USQ Distance and e-Learning Centre, Toowoomba.

Selected Readings 2008, *Course CSC2407 Introduction to Software Engineering*, USQ Distance and e-Learning Centre, Toowoomba.

Sommerville, I 2007, *Software Engineering*, 8th edn, Pearson/Addison-Wesley, New York.

Study Book 2008, *Course CSC2407 Introduction to Software Engineering*, USQ Distance and e-Learning Centre, Toowoomba.

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.

Sommerville, I 2004, *Software Engineering*, 7th edn, Pearson/Addison-Wesley, Harlow, England.

STUDENT WORKLOAD REQUIREMENTS

| ACTIVITY | HOURS |
|---------------|--------|
| Examinations | 2.00 |
| Lectures | 42.00 |
| Private Study | 110.00 |
| Tutorials | 14.00 |

ASSESSMENT DETAILS

| Description | Marks out of | Wtg (%) | Due date |
|----------------------------|--------------|---------|-------------|
| ASSIGNMENT 1 | 10.00 | 10.00 | 14 Aug 2009 |
| ASSIGNMENT 2 | 20.00 | 20.00 | 11 Sep 2009 |
| ASSIGNMENT 3 | 20.00 | 20.00 | 23 Oct 2009 |
| 2HR RESTRICTED EXAMINATION | 100.00 | 50.00 | END S2 |

IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:**

There are no attendance requirements for this course. However, 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 aggregate of the weighted 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); calculators which cannot hold textual information (students must indicate on their examination paper the make and model of any calculator(s) they use during the examination).
- 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 must retain a copy of each item submitted for assessment. If requested, students will be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to USQ within 24 hours of receipt of a request being made.
- 11 In accordance with University policy, the Examiner may grant an extension of the due date of an assignment in extenuating circumstances.
- 12 The Faculty will normally only accept assessments that have been written, typed or printed on paper-based media.
- 13 The Faculty will NOT accept submission of assignments by facsimile.
- 14 In the event that a due date for an assignment falls on a local public holiday in their areas, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.
- 15 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 e-mail and internet access to UConnect for this course.
-