🏠 Home / Software Testing [CSI3105]

| Enrolment Period 1 | Enrolment Period 2 |

School: Science

This unit information may be updated and amended immediately prior to semester. To ensure you have the correct outline, please check it again at the beginning of semester.

Unit Title	Software Testing
Unit Code	CSI3105
Year	2019
Enrolment Period	1
Version	1
Credit Points	15
Full Year Unit	N
Mode of Delivery	On Campus
	Online
Unit Co-ordinator	A/Prof Martin MASEK

Description

This unit focuses on the study of approaches and techniques for testing software systems. This unit will introduce various test case design techniques and test adequacy coverage criteria. The unit will also cover test automation and regression testing in software maintenance. In addition, students will learn strategies/approaches for testing object-oriented software, graphical-user interfaces as well as mobile and web applications.

Prerequisite Rule

must have passed CSI2343

Learning Outcomes

On completion of this unit students should be able to:

1. Describe the importance of systematic testing.
2. Apply different test case design techniques, recognising the strength and weakness of each and being able to choose techniques appropriately.
3. Examine a suite of test cases in terms of test adequacy coverage.
4. Investigate various techniques for GUI-based software, web-based and other types of software architecture and their role in software systems.
5. Implement a case study, demonstrating appropriate use of testing techniques and generate the test harnesses for the software system.

Unit Content

1. Introduction to software testing.
2. Test case generation and techniques including functional, structural, combinatorial and model-based.
3. Test adequacy coverage criteria.
4. Object-oriented testing.
5. Software maintenance and regression testing.
6. Automated testing.
7. GUI testing.
8. Testing Web-based applications and smart mobile device applications.

Learning Experience

ON-CAMPUS

Students will attend on campus classes as well as engage in learning activities through ECU Blackboard.

	Joondalup	Mount Lawley	South West (Bunbury)
Semester 1	13 x 2 hour lab	Not Offered	Not Offered
Semester 1	13 x 2 hour lecture	Not Offered	Not Offered
Semester 1	13 x 1 hour waitlist	Not Offered	Not Offered

For more information see the Semester Timetable

ONLINE

Students will engage in learning experiences through ECU Blackboard as well as additional ECU learning technologies.

Additional Learning Experience Information

Learning will be through lectures and follow-up practical sessions. Development of practical skills will be within workshops and team situations.

Assessment

GS1 GRADING SCHEMA 1 Used for standard coursework units

Students please note: The marks and grades received by students on assessments may be subject to further moderation. All marks and grades are to be considered provisional until endorsed by the relevant Board of Examiners.

ON CAMPUS

Type	Description	Value
Assignment	Software testing techniques	20%
Case Study	Software testing and implementation	30%
Examination ^	End of semester examination	50%

ONLINE

Type	Description	Value
Assignment	Software testing techniques	20%
Case Study	Software testing implementation	30%
Examination ^	End of semester examination	50%

^ Mandatory to Pass

Disability Standards for Education (Commonwealth 2005)

For the purposes of considering a request for Reasonable Adjustments under the Disability Standards for Education (Commonwealth 2005), inherent requirements for this subject are articulated in the Unit Description, Learning Outcomes and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the support for students with disabilities or medical conditions can be found at the Student Equity, Diversity and Disability Service website.

Academic Misconduct

Edith Cowan University has firm rules governing academic misconduct and there are substantial penalties that can be applied to students who are found in breach of these rules. Academic misconduct includes, but is not limited to:

- plagiarism;
- unauthorised collaboration;
- cheating in examinations;
- theft of other students' work;

Additionally, any material submitted for assessment purposes must be work that has not been submitted previously, by any person, for any other unit at ECU or elsewhere.

The ECU rules and policies governing all academic activities, including misconduct, can be accessed through the ECU website.

CSI3105|1|1