TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI



School of Information Management

INFO377 System Verification

Trimester 2, 2016

COURSE OUTLINE

Prescription

Critically evaluate theory and heuristics of test design, planning and implementation. Apply the theory of information systems assurance to design and build test plans for specific systems and software requirements. Implement key components of program testing, logic testing and user acceptance testing.

Course Learning Objectives

- 1. Critically evaluate basic principles of systems testing and verification
- 2. Implement key components of program testing, logic testing and user acceptance testing.
- 3. Plan, organise and evaluate methods to prepare test plans
- 4. Construct test plans for specified requirements.

Trimester Dates

Teaching Period: Monday 11th July – Friday 14th October Study Period: Monday 17th October – Thursday 20th October Examination Period: Friday 21st October – Saturday 12th November (inclusive)

Course Content

| Week | Торіс | Workshops |
|------------|--|-------------|
| 1 | Introduction to systems testing, verification and validation | No Workshop |
| 2 | Testing in software development | Workshop 1 |
| 3 | Testing as a community endeavour | Workshop 2 |
| 4 | Information architecture validation | Workshop 3 |
| 5 | Online application verification | Workshop 4 |
| 6 | Using experimental principles (A/B testing) | No Workshop |
| 7 | Process verification and validation | Workshop 5 |
| 8 | Agile test approaches | Workshop 6 |
| 9 | Analytics | Workshop 7 |
| 10 | User acceptance | No Workshop |
| 11 | Stress testing | No Workshop |
| 12 | Penetration testing | No Workshop |
| | Group project due Friday 14 th October 5pm | |
| Study Week | Exam study | |

Even though there are no scheduled workshops in weeks 6,10,11,12. The lab will still be booked for INFO377 at the normal times so you can use the tools to work on your project.

Withdrawal from Course

- 1. Your fees will be refunded if you withdraw from this course on or before Friday 22nd July 2016.
- 2. The standard last date for withdrawal from this course is Friday 23rd September 2016. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an '*Application for Associate Dean's Permission to Withdraw Late'* including supporting documentation. The application form is available from either of the Faculty's Student Customer Service Desks or <u>online</u>.

Names and Contact Details

| | Staff | Contact Details | Room | Office Hours |
|-----------------------------------|-----------------------------------|--|--------|------------------------------------|
| Course Coordinator & Lecturer | Dr Allan Sylvester | allan.sylvester@vuw.ac.nz (preferred) | RH 501 | By arrangement |
| Lab Instructor | Mr Rory Sudfelt | simstudents@vuw.ac.nz | n/a | n/a |
| SIM Undergraduate Support Team | Anette Klaassen Duncan Inkster | simstudents@vuw.ac.nz 04 463 6998 | RH 521 | Mon-Fri 10am-4pm or by appointment |

Class Times and Room Numbers

| Class | Day | Start | Finish | Location |
|-----------------|-------------------|-------|--------|----------|
| Workshops | Sign up in Week 1 | | | |
| Lecture/Seminar | Thursday | 09:30 | 11:20 | GBLT4 |

Workshop Signups

Sign up via myAllocator https://student-sa.victoria.ac.nz/

Course Delivery

This course is delivered via:

- Interactive seminar style lectures
- Online content
- Practical workshops
- Guest talks from IT testing practice
- Self directed study and exploration.

Attendance in person is strongly advised because much of the learning takes place through participation in activities and discussion with your colleagues.

The associated workshops will introduce you to a variety of software and techniques you may not have encountered before, the learning curve can be steep. Hang in there and give yourself plenty of time to explore and learn, be prepared to make mistakes and share you successes (and failures) with others in the class.

Readings

Set text (below) is available through VicBooks. Materials will also be provided on Blackboard.

Textbook

| Authors: | John Watkins & Simon Mills |
|----------|---|
| Title: | Testing IT: An Off-the-shelf Software Testing Process |
| ISBN: | 9780521148016 |

Expected Workload

This is a 15-point course. One point equates to 10 hours of work, or 150 hours for a 15-point course.

You are expected to attend all course sessions, read assigned materials, and contribute to class and workshops. You are expected to spend 3 hours in class and about 7 hours preparing for class on average.

Additional time of approximately 30 hours spread over the trimester will be required for completion of the course group project assignment.

Assessment

The Assessment Handbook will apply to all VUW courses: see http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf.

| Assessment item | Description | Learning objectives | Weight |
|---|--|------------------------|------------|
| Lab tasks signed off by lab instructor after demonstration and discussion. | Exhibit competency with tools and techniques introduced in workshops. | 2,3, 4 | 35% (7x5%) |
| Verification and validation project (Due <u>October 14, 5pm</u>) | (a) Work in small team to develop a test project and implement the plan.(b) Keep personal testing journal in Blackboard | All | 35% |
| Final Exam | All aspects of the course | All | 30% |

If you cannot complete an assignment or sit a test or examination, refer to www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat

Examinations

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period. The final examination for this course will be scheduled at some time during the following period: Friday 21st October – Saturday 12th November (inclusive)

This is a new course so there are no prior examinations to refer to.

Penalties

The penalty for late submission of work without a prior extension arrangement is a reduction of 10% of the available marks each calendar day, starting from the due date and time, up to 5 days after the due date. At the course coordinator's discretion, work handed in after 5 days may be assessed and feedback provided, but no grade will be assigned.

Extensions

Personal extensions are granted only in special circumstances and the course coordinator or SIM undergraduate support team may request supporting evidence such as a medical certificate. Requests for an extension should be emailed to simstudents@vuw.ac.nz

Non-extendable assessments. For some work, such as: lab projects, case discussion preparation, and tutorial preparation there is no possibility of late submission as the opportunity for the work to be completed has already passed.

Group Work

This course has a group project component (worth 35% of the course grade). You should plan to spend time with your group in the lab and at other times. This is a **group work** task with **individual assessment**. Each individual is required to submit a personal journal detailing their contribution to the project. In addition, a fair-share table from the group will be included in the group report.

Student feedback

Student feedback on University courses may be found at www.cad.vuw.ac.nz/feedback/feedback_display.php.

<u>Class Representative</u>

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the course coordinator and the class. The class representative provides a communication channel to liaise with the course coordinator on behalf of students.

Communication of Additional Information

Blackboard, in-class sessions and workshops are the main ways of engaging with this course. Important information will be made available via these channels.

Link to general information

For general information about course-related matters, go to http://www.victoria.ac.nz/vbs/studenthelp/general-course-information

Note to Students

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.
