Software testing - revision

Aims and learning outcomes
Assessment
Format of the written examination

Revision topics

Aims of the module

- To provide a systematic overview of standards, techniques and tools in software testing.
- To introduce core methodologies for the management and execution of the testing process.
- To introduce practical techniques for testing and apply them to simple examples.

Assessment

- Continuous assessment (30%) √
- 1.5 hr examination (70%)
- Resit by examination only

Format of the written examination

- 1.5 hours
- Compulsory part
  - Multiple choice questions
    - Terminology / understanding of concepts
    - Each question has ONE correct answer; if more than one answer is chosen, the mark of 0% will be given
  - Short practical questions
- Choose one option out of two
  - A problem solving question

Learning outcomes

(Course web pages)

On successful completion of this module, the student should be able to:	Assessed by:
Describe key techniques and standards in software testing.	Examination
Explain and evaluate strategies for software testing for both complete life cycles and individual phases.	Examination
Demonstrate awareness of the range and capabilities of testing tools.	Continuous assessment, Examination
Produce appropriate documentation for test management, including test plans, test schedules and test progress monitoring.	Examination, continuous assessment
Specify and design test cases and execute a test procedure for selected problems.	Examination, continuous assessment

Learning outcomes

- Describe key techniques and standards in software testing
- Techniques
  - Boundary value
  - Equivalence classes
  - Decision tables
  - Path testing
  - Data flow testing
- Their classification

Learning outcomes

- Describe key techniques and standards in software testing
- Standards
  - Purpose
  - Issues
  - Key topics (numbers and exact titles not required)
- Describe
  - Concepts
  - Terminology
  - Methodologies
  - Abstract tools and constructs

Learning outcomes

- Explain and evaluate strategies for software testing for both complete life cycles and individual phases
- Explain
  - Testing techniques in context of the life cycle
  - Technical approaches and tools
- Evaluate
  - Metrics, graphical tools
  - Practical evaluation for a given example

Learning outcomes

- Demonstrate awareness of the range and capabilities of testing tools
- Range
- Capabilities
- Evaluation

Learning outcomes

- Test management, including test plans, test schedules and test progress monitoring
- Broad understanding of issues covered by test management and documentation, regarding
  - Test policy
  - Test plan
  - Test execution
  - Test monitoring and control

Learning outcomes

- Specify and design test cases and execute a test procedure for selected problems
- Test cases for simple problems
  - Analysis (using one of the key techniques)
  - Specification of test cases (using formal notation)
  - Critical analysis

Other points

- Expect a small number of questions which go outside the material covered in lectures (but are covered by the materials suggested for the recommended reading)
- Revise the Homework exercises
- Study the key examples given on the course web pages
- Look at the past exam papers at
  - http://www.exampapers.bham.ac.uk/

Office hours

- I am available during the following office hours:
  - Thursday 12th May 4:00 – 5:00
  - Friday 13th May 4:30 – 5:30
  - Wednesday 18th May 4:00 – 5:00

Good luck!