

## 06-18158 Software Testing

Level 4/M  
10 credits in Sem2

Professor Ela Claridge

### Software testing as a SE discipline

- A systematic approach to software testing
- Framed in context of the software life cycle and as a branch of software engineering
- Builds on the prior knowledge of software engineering
- Extends the topic in both breadth and depth.
- Aims to develop approach to software testing as a professional software engineering discipline.

### Aims

- 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.

### Teaching and Assessment

#### Teaching methods

- Lectures, seminars (by student groups), individual study, practical work (including [homework exercises](#))

#### Assessment

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

#### Teaching materials on the Web

- <http://www.cs.bham.ac.uk/~exc/Teaching/STesting/>

### Recommended books

- Software Testing: An ISEB foundation  
P Hambling et al.  
British Computer Society, 2007
- Systematic Software Testing,  
R Craig & SP Jaskiel  
Artech House, 2002
- Lessons Learned in Software Testing: A Context-Driven Approach  
C Kaner, J Bach & B Pettichord  
Wiley Europe, 2002

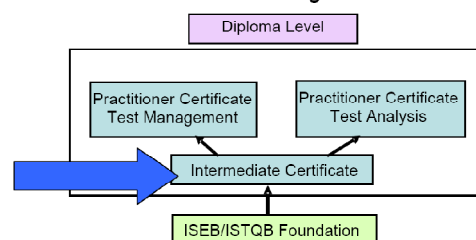
See also <http://www.bcs.org/upload/pdf/software-testing-reading.pdf>

Extensive supporting material online  
Includes IEEE and BCS standards and guidelines  
<http://www.cs.bham.ac.uk/~exc/Teaching/STesting/>

### Professional relevance

British Computer Society (BCS)  
The Information Systems Examinations Board (ISEB)

#### ISEB Software Testing Qualifications



## Professional relevance

The syllabus covers

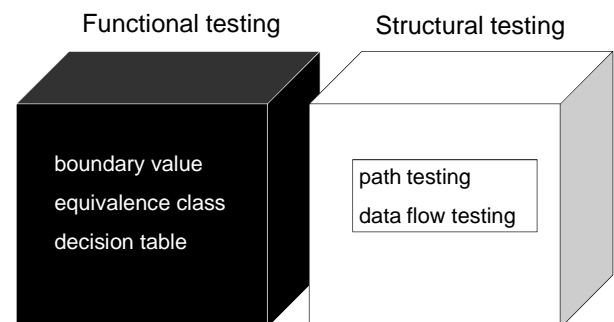
- 90% of the topics required for the ISEB Foundation Certificate in Software Testing (first level)
- 50% topics required for the Intermediate Certificate in Software Testing (second level)
- Exams for the Certificates are administered by the British Computer Society's Information Systems Examination Board (ISEB) ([see www.bcs.org.uk/iseb](http://www.bcs.org.uk/iseb))

## Syllabus

## Introduction

- General introduction and plan of the course
- Prioritisation and risk analysis
- Fundamentals of the test process
- Standards and documentation (part 1)

## Techniques



## Testing strategies and management

- Unit, integration and system testing
- Managing the testing process
- Standards and documentation (part 2)
- Testing tools

## Assessed work

- Specification and design of test cases (20%)
  - Assignment: **14 February**
  - Hand-in date: **28 February, 12:00**
- Presentations + written summary (10%)
  - Assignment: **1 March**
  - Presentations: **21, 22, 28 March**
  - Written summary: **4 April, 12:00**

Late submission penalties apply (see the Handbook)