

# Institute of Coding Skills Bootcamp

## Software Testing

**Location:** Hybrid - Swansea University and online | **Professional Learner Credits:** 10 | **Cost:** Free

**Contact Hours:** 2 hours of tutorials per week, 10 weeks

### Synopsis:

Ever wondered how an aeroplane is tested? How do software testers and developers know they can trust the software they have produced to not fail mid-flight? Software Testing is the process of systematically experimenting with an object (the SUT = System Under Test) in order to establish its quality, where quality means the degree of accordance to the intention or specification. This module will cover various test types and methods that learners will be able to apply to a variety of scenarios; e.g. Boundary value analysis, path coverage, decision tables, and more. The methods and techniques covered also appear in the International Software Testing Qualifications Board (ISTQB) tester certification which is widely recognised.

### Notes:

This module is aimed at professional learners who are looking to develop their software testing skills.

### Assessment:

Learners will be assessed on their understanding of the content through weekly quizzes, an assignment, and a 2-hour exam at the end of the 10 weeks.

### Aim:

The aim of this module is to introduce learners to various practical testing techniques and to make them aware of the different levels of testing.

### Learning Outcomes:

Learners will be able to explain testing as a method to validate software systems, analyse software testing problems, critically evaluate and select software test scenarios and understand and use basic tools for testing

### Syllabus:

What testing is and the testing process; Types and levels of testing; Boundary value analysis, Robustness testing and Equivalence class testing; Decision Table-Based Testing; Path Testing, Data Flow Testing; State and Use Case Testing; Test planning & management; Testing within the Software Development Life Cycle