Software Engineering (COMP0010)

Description

Aims:
This module focusses on designing and building software systems, which these days are often large, complex and long-lived. They are worked on by teams of engineers and changed constantly over their lifetimes. We will look at principles and patterns of software design, where to apply them, and how they may inform our design choices. We will also look at techniques for ensuring that systems you build behave correctly. We show how the application of these makes it possible to evolve systems effectively in a rigorous way.

Learning outcomes:
On successful completion of the module, a student will be able to:
1. appreciate the wider engineering context that forms the background to developing complex, evolving software-intensive systems;
2. apply a range of design patterns and principles to solve particular design problems;
3. apply a range of refactoring techniques to improve code quality;
4. use a range of tools and techniques for automated software testing, including test-driven development;
5. manage risk in making changes to an existing software system through rigorous engineering practices;
6. reflect on the appropriateness of different software engineering techniques in different circumstances, and on the quality of the design of an application.

Content:
- OO Design Principles;
- Design Patterns;
- Software Architecture;
- Testing;
- Tools and Processes

Requisites:
In order to be eligible to select this module, a student must

Key information

Year             2019/20
Credit value     15 (150 study hours)
Delivery         UG L5, Campus-based
Reading List     View on UCL website
Tutor            Mr Sergey Mehtaev
Term             Term 1
Timetable        View on UCL website

Assessment

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk
e registered on a programme for which it is a formally-approved option or elective choice AND must have taken a Java programming course.