Software Engineering (COMP0010)

Description

Aims:
This module focuses 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 Mechtaev
Term Term 1
Timetable View on UCL website

Assessment

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

Disclaimer: All information correct as of June 2019. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.
e registered on a programme for which it is a formally-approved option or elective choice AND must have taken a Java programming course.