F27SA Software Development 1

COURSE DETAILS
Course Code: F27SA
Full Course Title: Software Development 1
SCQF Level: 7
SCAF Credits: 15
Available as Elective: No

DELIVERY LEVEL
Undergraduate: Yes  Postgraduate Taught: No  Postgraduate Research: No

Additional Information:
<p>Course being delivered at the specified campus(es) and also at a by collaborative partner – Ocean University of China on BEng Robotics programme</p>

COURSE AIMS
To introduce the object-oriented paradigm and the use of an object-oriented language.

LEARNING OUTCOMES – SUBJECT MASTERY
- Knowledge of the object-oriented paradigm
- Awareness of the contrast with other programming paradigms
- Manipulating objects in an IDE
- Understanding and using documentation in an API
- Reading, understanding, adapting, creating, and documenting object-oriented code

LEARNING OUTCOMES – PERSONAL ABILITIES
- Sharing work with random partners in laboratories using version control (pair programming)
- Deriving and creating own solutions to problems (pdp)
- Competence in the use of a command-line shell (pdp)
- Reading and running code, and modifying it

SYLLABUS
- Objects and classes
- Class definitions: fields, constructors, methods, parameters
- Selection and iteration
- Object interaction: main method, creating and using class instances.
- Grouping objects: collection classes, iterators, arrays
- Library classes, documentation
- Testing and debugging

COURSE RELATIONSHIPS
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