### COURSE DETAILS

**Course Code:** F28XO  
**Full Course Title:** Data Structures and Algorithms  
**SCQF Level:** 8  
**SCAF Credits:** 15  
**Available as Elective:** No

### DELIVERY LEVEL

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<th>Postgraduate Taught</th>
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**Additional Information:**

### COURSE AIMS

Basic concepts of data, data structure, algorithm and algorithm analysis

### LEARNING OUTCOMES – SUBJECT MASTERY

Basic concepts of data, data structure, algorithm and algorithm analysis

Data structure and its operation

Several basic logical structures, physical representations, operations, and implementation methods of data

Mathematical models of several basic logical structures, abstract data type representations, and algorithm description methods

Analysis and comparison the performance of the algorithm

Meaning of algorithm analysis

Basic methods of algorithm analysis

### LEARNING OUTCOMES – PERSONAL ABILITIES

Ability to design complex algorithms

Team spirit

Team working skills
F28XO Data Structures and Algorithms

SYLLABUS

Introduction to the storage structure, access strategy and calculation of data in computer systems

Basic concepts of data, data structure, algorithm and algorithm analysis

Basic logical structure, physical representation, operation, and implementation of the data

Analysis and design of the algorithm

Design of complex algorithms

COURSE RELATIONSHIPS

N/A

LOCATION AND ASSESSMENT METHODS

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