## Module Catalogue Computer Science and Engineering Undergraduate Exchange 2023/4 Semester 1

| **Module Code** | **Module Name** | **Level** | **Semester** | **UK Credit Value** | **Credit Equivalency** |
| --- | --- | --- | --- | --- | --- |
| **Computer Science and Engineering** | | | | | |
| 4COSC001W | [Software Development I](#4COSC001W) | 4 | Semester 1 | 20 | US Credits 4 / ECTS credits 10\* |
| 5COSC019W | [Object Oriented Programming](#5COSC019W) | 5 | Semester 1 | 20 | US Credits 4 / ECTS credits 10\* |
| 5COSC020W | [Database Systems](#5COSC020W) | 5 | Semester 1 | 20 | US Credits 4 / ECTS credits 10\* |
| 5COSC026W | [Advanced Client-Side Development](#5COSC026W) | 5 | Semester 1 | 20 | US Credits 4 / ECTS credits 10\* |
| 6MMCS009W | [Usability Testing and Evaluation](#6MMCS009W) | 6 | Semester 1 | 20 | US Credits 4 / ECTS credits 10\* |

\* All transcripts are issued in UK credits. Please note the recommendation of a 4 US credit value equivalency is provided as guidance. Final credit values for all modules for US students are decided by your home institution and will be dependent on its credit transfer policies.

## Computer Science and Engineering

### Software Development I

[**Module Code: 4COSC001W**](#4COSC001W_return)

**Level 4**

**Semester 1**

**Location: Cavendish**

**UK Credit Value: 20**

**Equivalent Credit Value: US Credits 4 / ECTS credits 10\***

An introduction to computer programming in a high-level programming language. The module concentrates on teaching the fundamentals of programming and algorithm design. Basic coding structures such as sequence, selection, and iteration will be covered. There will be an emphasis on practical exercises to develop programming experience and confidence.  
**Assessment:** Coursework (50%), In-Class Test/Assignment exam conditions (50%)  
\*All transcripts are issued in UK credits.

### Object Oriented Programming

[**Module Code: 5COSC019W**](#5COSC019W_return)

**Level 5**

**Semester 1**

**Location: Cavendish**

**UK Credit Value: 20**

**Equivalent Credit Value: US Credits 4 / ECTS credits 10\***

This module will teach the fundamental ideas behind the object-oriented approach to programming. It will provide students with knowledge and practical experience in writing computer programmes using object-oriented programming techniques. It will cover in a practical way the design and implementation of object-oriented software for software applications through the entire software development lifecycle.  
**Assessment:** Coursework (50%), In-Class Test/Assignment exam conditions (50%)  
\*All transcripts are issued in UK credits.

### Database Systems

[**Module Code: 5COSC020W**](#5COSC020W_return)

**Level 5**

**Semester 1**

**Location: Cavendish**

**UK Credit Value: 20**

**Equivalent Credit Value: US Credits 4 / ECTS credits 10\***

***Pre- requisite 4COSC003W Computer Science or equivalent***  
This module provides solid knowledge and skills in the area of database systems, SQL and XML. It covers the logical design of a relational schema. It also covers the implementation of the database in a major DBMS and the manipulation of the data using SQL. Subsequently, it considers the transformation and rendering of XML documents using XSLT and the extraction of elements from XML documents using XPath and XQuery. Finally, it explores issues related to NoSQL databases and XML databases.  
**Assessment:** Coursework (40%), In-Class Test/Assignment exam conditions (60%)  
\*All transcripts are issued in UK credits.

### Advanced Client-Side Development

[**Module Code: 5COSC026W**](#5COSC026W_return)

**Level 5**

**Semester 1**

**Location: Cavendish**

**UK Credit Value: 20**

**Equivalent Credit Value: US Credits 4 / ECTS credits 10\***

This module provides practical knowledge and understanding of client-side or/else front-end development programming using advanced HTML5, CSS3 and JavaScript. Client-side technologies, including HTML5 Audio and Video are covered together with a client-side scripting language, a UI and CSS framework and a client-side scripting framework. The module also covers issues pertaining to front-end security.  
**Assessment:** In-Class Test/Assignment exam conditions (40%), Coursework (60%)  
\*All transcripts are issued in UK credits.

### Usability Testing and Evaluation

[**Module Code: 6MMCS009W**](#6MMCS009W_return)

**Level 6**

**Semester 1**

**UK Credit Value: 20**

**Equivalent Credit Value: US Credits 4 / ECTS credits 10\***

The module provides students with essential skills and practice in a range of usability techniques, how to conduct usability studies and evaluations of a wide range of products or platforms. The importance of applied understanding of the different evaluation approaches and the use of experimental design and statistical analysis is illustrated through real world examples. The ability to interpret and critically discuss results is stressed throughout.  
**Assessment:** Group Coursework (50%), Coursework (50%)  
\*All transcripts are issued in UK credits.