## Module Catalogue Computer Science and Engineering Undergraduate Study Abroad 2023/4 Semester 2

| **Module Code** | **Module Name** | **Level** | **Semester** | **UK Credit Value** | **Credit Equivalency** |
| --- | --- | --- | --- | --- | --- |
| **Computer Science and Engineering** | | | | | |
| 5BUIS019W | [Business Analytics](#5BUIS019W) | 5 | Semester 2 | 20 | US Credits 4 / ECTS credits 10\* |
| 5COSC023W | [Mobile Application Development](#5COSC023W) | 5 | Semester 2 | 20 | US Credits 4 / ECTS credits 10\* |
| 6COSC019W | [Cyber Security](#6COSC019W) | 6 | Semester 2 | 20 | US Credits 4 / ECTS credits 10\* |
| 6MMCS008W | [Advanced Interactive Media Development](#6MMCS008W) | 6 | Semester 2 | 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

### Business Analytics

[**Module Code: 5BUIS019W**](#5BUIS019W_return)

**Level 5**

**Semester 2**

**Location: Cavendish**

**UK Credit Value: 20**

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

***Pre-requisite: Business Mathematics***  
This module introduces students to the Operational Research (OR) techniques, commonly used for business analytics, such as Linear programming, forecasting, simulation and decision making. It helps students to develop and analyse analytical models that support making effective business decisions.  
**Assessment:** Coursework (50%), In-Class Test/Assignment exam conditions (50%)  
\*All transcripts are issued in UK credits.

### Mobile Application Development

[**Module Code: 5COSC023W**](#5COSC023W_return)

**Level 5**

**Semester 2**

**Location: Cavendish**

**UK Credit Value: 20**

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

The module is an introduction to software development on mobile devices such as mobile phones, tablets and wearables. It concentrates on the Android platform. The main contents include:The Android mobile programming architecture. Restrictions of using small devices such as mobile phones tablets and wearables. Programming user interfaces, networking, persistent storage and multi-threading. Device profiling, application deployment and installation.  
**Assessment:** Coursework (50%), Coursework (50%)  
\*All transcripts are issued in UK credits.

### Cyber Security

[**Module Code: 6COSC019W**](#6COSC019W_return)

**Level 6**

**Semester 2**

**Location: Cavendish**

**UK Credit Value: 20**

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

This module examines various aspects of computer and network security giving a sound introduction to theoretical and practical areas such as network security, cryptography, attack vectors used by hackers, security architecture, methodologies for security hardening and defence and penetration testing strategies. A substantial amount of work will be laboratory based involving the deployment of security tools, the hardening of operating systems and the analysis of compromised systems.  
**Assessment:** Coursework (50%), In-Class Test/Assignment exam conditions (50%)  
\*All transcripts are issued in UK credits.

### Advanced Interactive Media Development

[**Module Code: 6MMCS008W**](#6MMCS008W_return)

**Level 6**

**Semester 2**

**Location: Cavendish**

**UK Credit Value: 20**

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

This module covers essential topics of advanced animation production (motion capture pipeline, data processing, animation blending, and incorporation of the animation in an industry standard games engine). It also provides an understanding of the issues, technologies and concepts underlying the vision of pervasive computing infrastructure to create alternative interaction styles. Supported coursework path is the production of an interactive rich media product with motion capture.  
**Assessment:** Coursework (40%), Coursework (60%)  
\*All transcripts are issued in UK credits.