

## Programme Regulations: 2022/23

### Programme Titles:

**Degree of Master of Science in Data Science (with Specialism in Statistics) - Code 4870 F/P**

**Postgraduate Diploma in Data Science (with Specialism in Statistics) - Code: 3527 F/P**

**Postgraduate Certificate in Data Science (with Specialism in Statistics) – Code: 3177 F/P**

### Notes

- (i) *These programme regulations should be read in conjunction with the University's Taught Programme Regulations.*
- (ii) *A compulsory module is a module which a student must take.*
- (iii) *A core module is a module a student must pass.*
- (iv) *A core module for PSRB accreditation is a module a student is required to obtain accreditation.*
- (v) *All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.*

### 1. Programme Structure

- (a) The programmes are available for study in both full-time and part-time modes.
- (b) The period of study for full-time mode shall be 1 year for Masters and eight months for Postgraduate Diploma starting in September. The period of study for part-time mode shall normally be 2 years starting in September. The period of study for Postgraduate Certificate for full-time mode shall be 8 months and part-time shall normally be 18 months.
- (c) The Masters programme comprises modules to a credit value of 180. The Postgraduate Diploma programme comprises modules to a credit value of 120. The Postgraduate Certificate programme comprises modules to a credit value of 60.

### 2. Taught Element

- (a) Candidates on the Masters and Postgraduate Diploma programmes shall take the following compulsory modules and candidates on the Postgraduate Certificate shall take optional modules to a value of 60 credits from the following:

| <i>Code</i>          | <i>Descriptive title</i>                      | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Credits Sem 3</i> | <i>Level</i> | <i>Core for PSRB Accreditation</i> | <i>Core for outcomes</i> | <i>Mode</i> |
|----------------------|---|----------------------|----------------------|----------------------|----------------------|--------------|------------------------------------|--------------------------|-------------|
| CSC8101 <sup>1</sup> | Engineering for AI                            | 10                   |                      | 10                   |                      | 7            |                                    |                          | Block       |
| CSC8621              | Computing Foundations of Data Science         | 10                   | 10                   |                      |                      | 7            | Core                               |                          | Block       |
| CSC8626              | Data Visualization                            | 10                   | 10                   |                      |                      | 7            | Core                               |                          | Block       |
| CSC8631              | Data Management and Exploratory Data Analysis | 10                   | 10                   |                      |                      | 7            | Core                               |                          | Block       |

|         |                                  |    |    |    |  |   |      |  |       |
|---------|----------------------------------|----|----|----|--|---|------|--|-------|
| CSC8632 | Data Science in the Wild         | 10 |    | 10 |  | 7 | Core |  | Block |
| CSC8633 | Group Project in Data Science    | 10 |    | 10 |  | 7 | Core |  | Block |
| MAS8382 | Time Series Data                 | 10 | 10 |    |  | 7 | Core |  | Block |
| MAS8383 | Statistical Learning Methodology | 10 | 10 |    |  | 7 | Core |  | Block |
| MAS8384 | Bayesian Methodology             | 10 |    | 10 |  | 7 | Core |  | Block |

<sup>1</sup> Candidates who receive DPD permission are able to swap CSC8101 to take x1 elective module of either CSC8636, CSC8637 or SEL8688 below:

| <i>Code</i> | <i>Descriptive title</i>   | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Credits Sem 3</i> | <i>Level</i> | <i>Core for PSRB Accreditation</i> | <i>Core for outcomes</i> | <i>Mode</i> |
|-------------|----------------------------|----------------------|----------------------|----------------------|----------------------|--------------|------------------------------------|--------------------------|-------------|
| CSC8636     | Complex Data Visualization | 10                   |                      | 10                   |                      | 7            |                                    |                          | Block       |
| CSC8637     | Deep Learning              | 10                   |                      | 10                   |                      | 7            |                                    |                          | Block       |
| SEL8688     | Data and Truth             | 10                   |                      | 10                   |                      | 7            |                                    |                          | Block       |

(b) Candidates shall select one module from the following:

| <i>Code</i> | <i>Descriptive title</i>      | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Credits Sem 3</i> | <i>Level</i> | <i>Core for PSRB Accreditation</i> | <i>Core for outcomes</i> | <u><i>Mode</i></u> |
|-------------|-------------------------------|----------------------|----------------------|----------------------|----------------------|--------------|------------------------------------|--------------------------|--------------------|
| CSC8635     | Machine Learning with Project | 10                   | 10                   |                      |                      | 7            |                                    |                          | Block              |
| CSC8628     | Image Informatics             | 10                   | 10                   |                      |                      | 7            |                                    |                          | Block              |

(c) Postgraduate Diploma candidates shall take the following compulsory module:

| <i>Code</i> | <i>Descriptive title</i>                         | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Credits Sem 3</i> | <i>Level</i> | <i>Core for PSRB Accreditation</i> | <i>Core for outcomes</i> | <i>Mode</i> |
|-------------|--|----------------------|----------------------|----------------------|----------------------|--------------|------------------------------------|--------------------------|-------------|
| CSC8638     | Diploma Project and Dissertation in Data Science | 20                   |                      | 20                   |                      | 7            | Core                               | Core                     |             |

(d) Master of Science candidates shall take the following compulsory module:

| <i>Code</i> | <i>Descriptive title</i>                 | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Credits Sem 3</i> | <i>Level</i> | <i>Core for PSRB Accreditation</i> | <i>Core for outcomes</i> | <i>Mode</i> |
|-------------|--|----------------------|----------------------|----------------------|----------------------|--------------|------------------------------------|--------------------------|-------------|
| CSC8639     | Project and Dissertation in Data Science | 80                   |                      | 20                   | 60                   | 7            | Core                               | Core                     |             |

### 3. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

### 4. Other

This programme is designed to produce graduates who will be expected to be equally capable in theoretical and practical aspects of their subject and it is essential that only students of equally high calibre in both aspects of the programme are eligible for merit and distinction awards. Therefore, the regulations are as follows:

#### *Course requirements*

A number of areas in which specific regulations have been defined for this programme, and approved by the Faculty Education Committee, are documented below, and in these areas these provisions take precedence over other University regulations.

#### *Progression within the MSc degree in Data Science (with Specialism in Statistics)*

Two assessed components comprise the MSc degree in Data Science (with Specialism in Statistics):

- Component 1: Nine 10-credit modules, and a 10-credit group project module.
- Component 2: 80 credits individual project with dissertation module.

In order to be permitted to start Component 2 a candidate must:

- Obtain a weighted average mark for Component 1 of at least 50, and have failed no more than 20 credits.

#### *Award of the MSc degree in Data Science (with Specialism in Statistics)*

To obtain the MSc degree, candidates must satisfy the examiners in both assessed components as follows.

- A student will be recommended for the *award of MSc with Distinction* if they have achieved a pass mark in 180 credits with a weighted average mark across all 180 credits of at least 70 and have a Component 2 mark of at least 70.
- A student will be recommended for the *award of MSc with Merit* if they have achieved a pass mark in 180 credits with a weighted average mark across all 180 credits of at least 60 and have a Component 2 mark of at least 60.
- A student will be recommended for the *award of MSc* if they have achieved a pass mark in at least 160 credits with a weighted average mark across all 180 credits of at least 50.