



School of Computing, Engineering and Built Environment

Department of Computing

MSc Big Data Technologies

Programme Specification (Abridged)

October 2021 Abridged Version

Programme Specification Pro-forma (PSP)

1. GENERAL INFORMATION

1.	Programme Title:	Big Data Technologies
2.	Final Award:	MSc Big Data Technologies
3.	Exit Awards:	PgD Big Data Technologies PgC Computing
4.	Awarding Body:	Glasgow Caledonian University
5.	Period of Approval:	
6.	School:	School of Computing, Engineering and Built Environment
7.	Host Department:	Computing
8.	UCAS Code:	
9.	PSB Involvement:	N/A
10.	Place of Delivery:	Glasgow and London Campuses
11.	Subject Benchmark Statement:	Computing
12.	Dates of PSP Preparation/Revision:	April 2021. Modules updated to 15-credit modules.

2. EDUCATIONAL AIMS OF THE PROGRAMME

The aim for MSc Big Data Technologies is to deliver a programme that allows students to develop expert knowledge and relevant in-depth practical skills in the rapidly expanding fields of Big Data and Analytics technologies. Students study and apply the underpinning technologies of cloud-based, Big Data architectures, platforms and Data Science software development methods, together with developing a working knowledge of the Internet of Things (IoT) – an area that is expanding rapidly and that ideally demonstrates the combination of Big Data and analytics. The programme combines the latest academic advances and provides practice in utilising the tools, techniques and design patterns used by industry professionals, to produce graduates that are intellectually and practically equipped for high quality relevant employment or capable of moving onwards to undertake related research. The programme philosophy and content are consistent-with and underpinned by professional and academic quality bodies, i.e., the BCS, ACM, IEEE and QAA. The programme is consistent with the University’s 2030 Vision that aims to create employable graduates wanting to use their skills to make a positive difference to society.

4. PROGRAMME STRUCTURES AND REQUIREMENTS, LEVELS, MODULES, CREDITS AND AWARDS

All Modules are SHEM (SCQF 11) Level.

Note: 2021-22 Trimester-B is a transition point where we are changing from 20-credit to 15-credit modules. This document includes the modules for entry from January 2022 onwards.

The GCU academic year is split into trimesters, each of 15 weeks (12 teaching plus revision and assessment weeks).

Trimester A starts at end of September and ends in December.

Trimester B starts at end of January and ends in May.

Trimester C starts at beginning of June and finishes at beginning of September.

Table 1(a) MSc/PgD Big Data Technologies (Full-Time: Trimester A Start Point)

Year 1 Trimester A		
ISIS Code	Module Title	Credits
MMI226831	Big Data Landscape	15 SHEM
MMI226822	Software Development for Data Science	15 SHEM
MMI226824	Artificial Intelligence and Machine Learning	15 SHEM
MMI226823	Data Ethics and Research Methods	15 SHEM
Year 1 Trimester B		
ISIS Code	Module Title	Credits
MMI226816	Cloud Computing and Web Services	15 SHEM
MMI126818	Internet of Things	15 SHEM
MMI227050	Big Data Platforms	15 SHEM
MMI226820	Data Visualisation	15 SHEM

Exit Awards:

Postgraduate Certificate in Computing:

60 SHEM credits

Postgraduate Diploma in Big Data Technologies:

120 SHEM credits

Year 1 Trimester C		
ISIS Code	Module Title	Credits
MMG411931	Dissertation	60 SHEM

Exit Award:

MSc in Big Data Technologies:

180 SHEM credits

SHEM = Scottish Higher Education Masters Level (SCQF Level 11)

SCQF = Scottish Credit and Qualifications Framework

Table 1(b) MSc/PgD Big Data Technologies (Full-Time: Trimester B Start Point)

Year 1 Trimester B		
ISIS Code	Module Title	Credits
MMI226816	Cloud Computing and Web Services	15 SHEM
MMI126818	Internet of Things	15 SHEM
MMI227050	Big Data Platforms	15 SHEM
MMI226820	Data Visualisation	15 SHEM
Year 2 Trimester A		
ISIS Code	Module Title	Credits
MMI226831	Big Data Landscape	15 SHEM
MMI226822	Software Development for Data Science	15 SHEM
MMI226824	Artificial Intelligence and Machine Learning	15 SHEM
MMI226823	Data Ethics and Research Methods	15 SHEM

Exit Awards:

Postgraduate Certificate in Computing: 60 SHEM credits

Postgraduate Diploma in Big Data Technologies: 120 SHEM credits

Year 2 Trimester B		
ISIS Code	Module Title	Credits
MMG411931	Dissertation	60 SHEM

Exit Award:

MSc in Big Data Technologies: 180 SHEM credits

SHEM = Scottish Higher Education Masters Level (SCQF Level 11)

SCQF = Scottish Credit and Qualifications Framework

Table 1(c) MSc/PgD/PgC Big Data Technologies (Part-Time: Trimester A Start Point)

Year 1 Trimester A		
ISIS Code	Module Title	Credits
MMI226831	Big Data Landscape	15 SHEM
MMI226822	Software Development for Data Science	15 SHEM
Year 1 Trimester B		
ISIS Code	Module Title	Credits
MMI226820	Data Visualisation	15 SHEM
MMI227050	Big Data Platforms	15 SHEM
Year 2 Trimester A		
ISIS Code	Module Title	Credits
MMI226824	Artificial Intelligence and Machine Learning	15 SHEM
MMI226823	Data Ethics and Research Methods	15 SHEM
Year 2 Trimester B		
ISIS Code	Module Title	Credits
MMI126818	Internet of Things	15 SHEM
MMI226816	Cloud Computing and Web Services	15 SHEM

Exit Awards:**Postgraduate Certificate in Computing:****60 SHEM credits****Postgraduate Diploma in Big Data Technologies:****120 SHEM credits****Year 2 Trimester C and Year 3 Trimester A (2 Trimesters in Duration)**

ISIS Code	Module Title	Credits
MMG411931	Dissertation	60 SHEM

Exit Award:**MSc in Big Data Technologies:****180 SHEM credits****SHEM = Scottish Higher Education Masters Level (SCQF Level 11)****SCQF = Scottish Credit and Qualifications Framework****Table 1(d) MSc/PgD/PgC Big Data Technologies (Part-Time: Trimester B Start Point)**

Year 1 Trimester B		
ISIS Code	Module Title	Credits
MMI226816	Cloud Computing and Web Services	15 SHEM
MMI226820	Data Visualisation	15 SHEM
Year 2 Trimester A		
ISIS Code	Module Title	Credits
MMI226831	Big Data Landscape	15 SHEM
MMI226822	Software Development for Data Science	15 SHEM
Year 2 Trimester B		
ISIS Code	Module Title	Credits
MMI227050	Big Data Platforms	15 SHEM
MMI126818	Internet of Things	15 SHEM
Year 3 Trimester A		
ISIS Code	Module Title	Credits
MMI226824	Artificial Intelligence and Machine Learning	15 SHEM
MMI226823	Data Ethics and Research Methods	15 SHEM

Exit Awards:**Postgraduate Certificate in Computing:****60 SHEM credits****Postgraduate Diploma in Big Data Technologies:****120 SHEM credits****Year 3 Trimester B and Year 3 Trimester C (2 Trimesters in Duration)**

ISIS Code	Module Title	Credits
MMG411931	Dissertation	60 SHEM

Exit Award:**MSc in Big Data Technologies:****180 SHEM credits****SHEM = Scottish Higher Education Masters Level (SCQF Level 11)****SCQF = Scottish Credit and Qualifications Framework**

8. ASSESSMENT REGULATIONS

Students should expect to complete their programme of study under the Regulations that were in place at the commencement of their studies on that programme, unless proposed changes to University Regulations are advantageous to students.

The Glasgow Caledonian University Assessment Regulations which apply to this programme, dependent on year of entry can be found at:

[GCU Assessment Regulations](#)