Postgraduate Programme Specification

Session	2026/27	**Last Modified**	220426
Named Award Title	MSc Advanced Computing; MSc Big Data; MSc Artificial Intelligence (AI)		
Award Title for Each Award	MSc Advanced Computing MSc Big Data MSc Artificial Intelligence PG Dip in Advanced Computing (Scottish Campus) PG Cert in Advanced Computing (Scottish Campus)		
Date of Approval	30/05/2025		
Details of Cohort Applies to	All students entering or progressing on the programme from September 2019 (addition of MSc AI stream in June 2023).		
Awarding Institution	University of the West of Scotland	**Teaching Institution(s)**	University of the West of Scotland Presidency University – India Lincoln University of Business Management (LUBM) - UAE
Language of Instruction & Examination		English	
Award Accredited by		British Computer Society (BCS) for MSc Advanced Computing; MSc Big Data; MSc Internet of Things (IoT); MSc Artificial Intelligence (AI) FOR SCOTTISH CAMPUS STUDENTS ONLY	
Maximum Period of Registration		For full time students the normal period of registration is 12 months, and the maximum period is 24 months. For part time students the normal period of registration is 24 months, and the maximum period is 36 months.	
Duration of Study			
Full-time	12 months	**Part-time**	24 months

Placement (compulsory)	No		
Mode of Study	☒ Full-time ☒ Part-time		
Campus	☐ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ X Paisley	☐ Online / Distance Learning ☒ Other (specify) Presidency University – India Lincoln University of Business Management (LUBM) - UAE
School	**CEPS**		
Divisional Programme Board	**Computing**		
Programme Leader	Prof Naeem Ramzan		

Admissions Criteria
Candidates must be able to satisfy the general admission requirements of the University of the West of Scotland as specified in Chapter 2 of the University Regulatory Framework together with the following programme requirements:

You should possess an appropriate undergraduate qualification in Computing / Engineering (or relevant disciplines).
You may also be considered with other academic, vocational or professional qualifications deemed to be equivalent.

Appropriate Undergraduate Qualifications:
Applicants will typically possess a degree or equivalent. In the absence of a degree, where entry requirements do not conform to the general entry requirements, other evidence can be considered on an individual basis in line with Regulations 2.13 – 2.36 (Recognition of Prior Learning – RPL / Recognition of Credit).

You should possess an appropriate undergraduate qualification (2.2 or above) in Computing / Engineering (or relevant disciplines).

Other Required Qualifications/Experience
None

Further desirable skills pre-application
Applicants may also be considered with other academic, vocational or professional qualifications deemed to be equivalent.

Final decision of admission will be at the discretion of the Programme Leaders.

General Overview

The availability of high speed internet and advancement in data processing, persisting and provisioning technologies along with miniaturization of sensing devices have opened new opportunities to utilise data to obtain a better understand of many application areas. This comprehensive understanding leads to intelligent and well informed decision making supported by fields of Big Data, Internet of Things (IoT); and Artificial Intelligence (AI). As we are moving toward connected environments, our reliance on data is increasing and also becoming important from a business and personal perspective. Advanced computing technologies provide a roadmap of technological innovation across science and engineering domains. The MSc Advanced Computing is a postgraduate programme focused on teaching advance topics of AI, IoT, Big Data, and Connected envirnments. It is designed to develop practical skills through comprehensive understanding of fundamental knowledge coupled with hands-on experience of advance computing technologies.

The MSc in Advanced Computing is motivated by following factors. Firstly, the growing market of the AI, Big Data and IoT and its mass adoption at personal and community level i.e., smart and wearable devices, and smart cities. Within UK and across the world, governments are supporting real deployment of smart sensing solutions for future cities. Secondly, conventional methodologies of data processing cannot handle Volume, Veracity, Variety, and Veracity of data generated through modern data sources i.e., smartphone, IoT, social media etc. Big data offers solutions to 4 V's with big data processing platforms and real-time analytics. This makes big data very attractive to service driven business and industry striving to unleash hidden wealth within modern data sources. Thirdly, with NHS funding gap forecasted to £30billion, the need of cost effective and timely health services is becoming inevitable. Big Data and Artificial Intelligence, has emerged as a promising field offering new range of services, better care and new job prospects. Fourthy, it tries to address the some of the UN Sustainable Development Goals (SDGs) like 3, 4, 6, 8, 9, and 11. Finally, the advancement in data sensing and communication technologies has significantly increased the reliance of businesses on data sources.

This MSc programme focuses on practical skill development. Modules are carefully selected as core and specialised modules. Core modules like Mobile Networks and Smartphone Application, Data Mining and Visualization, and Object Oriented Analysis and Design support necessary skill development for more specialised modules in Big Data, IoT and AI tracks. Modules like Emerging Topics in Advanced Computing and Networking is included in the programme structure to ensure students can learn state-of-the-art tools, technologies, and methodologies that are practiced in industry. The team is committed to provide research informed teaching, ensuring students can gain research experience and obtain critical awareness and judgement of methodologies, tools and technologies in specialised domains. Research active and experienced staff members in the area of advanced computing are involved in teaching and learning activities of this programme. They have been leading various nationally and internationally funded R&D projects and standardisation activities, in collaboration with other research institutions and industry partners. They have a track record of scholarly publications in top tier journals and conferences.

Programme Overview (2) (Employers)

The MSc Advanced Computing has been designed to adhere to UK QAA Benchmark Statement for Masters Degrees in Computing. The programme is supported by the Scottish Funding Council's Innovation Centres: Digital Health & Care Institute, Data Lab and Innovation Centre for Sensor and Imaging Systems. For its relevance to the job market trends

and employers expectations from graduating students this programme is acknowledged by the UWS Industrial Advisory Board.
This programme is mainly motivated by the growing importance of internet-of-things and big data and their obvious benefits to the application areas of digital health. International Data Corporation (IDC: a market research firm) predicated that IoT market will grow to £4.93 trillion in revenue by 2020 [1]. Gartner estimated, IoT install base will hit 26 billion units by 2020 [2]. Similarly, IDC forecasted that that Big Data technology market will grow at a 26.4% CAGR (compound annual growth rate) to £28.79 billion by 2018 – approximately six times the growth rate of the overall information technology market [3]. The market of both smart sensing solutions (IoT) and data driven services (AI) is very promising. The overall interest in advanced computing across the world has risen, driven by the inception of sensing devices, and tools and technologies that make used of data generated from those devices for a particular application area. With the growing market of internet-of-things, big data and importance of advanced computing skills in AI, UWS graduates will be appropriately skilled with theoretical understanding and practical knowledge.
Teaching and learning activities within each module are specifically designed to focus on practical skills development – rather than concentrating on theoretical aspects of topics. The development of knowledge and expertise of advanced computing is support by core modules in specialised tracks of Internet-of-things, Big Data, and AI. All core modules are designed to respect the overarching theme of advanced computing, delivering research informed teaching in lectures, tutorials, and laboratory sessions; while other modules will focus on academic, research and ethical practices within professional environment.
Through the master projects students are encouraged to select topics having a focus or potential for industrial innovation or addressing specific research challenges where appropriate. Students are introduced to research groups and institutes to work on research projects relevant to overall theme of advanced computing.

Programme Overview (3) (students)
This specialist programme is designed to build upon your computing expertise and focuses on the understanding and development of state-of-the-art advanced computing systems that meet the increasing business requirements of modern day businesses. In the MSc Advanced Computing you will learn theoretical concepts and build practical skills. The teaching and learning activities are explicitly designed to support comprehensive understanding of a topic and its practical working and hands-on experience. This programme will also suit students who will pursue research degrees (MPhil/PhD) in related technology areas upon their graduation from this programme. You will closely work with research active staff to seek research guidance for emerging research challenges and areas.

Pointers to Further Study-Progression Routes
This MSc programme is predominantly delivered by research active staff. Students will get a chance to work on challenging research problems. The masters project will significantly help to understand requirements of research and get motivated to solve research challenges that have a social and economic impact. Completion of this MSc will greatly enhance the potential of any student to progress to a doctorate degree in relevant areas of advanced computing as well as offering enhanced career opportunities in industry.

Teaching, Learning and Assessment Strategy
The teaching and learning strategies adopted for the PgD/MSc advanced computing, MSc Big Data, MSc IoT, MSc AI are planned to deliver students with the necessary subject knowledge, understanding, abilities and skills for the Advanced Computing and/or related stream profession.
An assortment of teaching methods will be used to guarantee that students become and remain engaged, motivated and challenged to learn. Much of this is left to the

professionalism of the staff delivering the material with some traditional lectures and tutorials featuring for face-to-face delivery in most modules. After first year, distance and flexible delivery however a range of innovative approaches to learning will be used and these will be made available for face-to-face students as supporting material or to enable reinforcement of learning.
The intention is to deliver the programme on a face-to-face basis initially, to allow bedding in with the development of material to support distance and other forms of delivery brought on stream to support demand.
Every module will have a VLE site, with background information to the module, teaching, laboratory and tutorial schedules and staff contact details. Some modules will make use of discussion forums and chat groups to support engagement with the module topic and materials outside of scheduled class times. Formative and summative (project and coursework type) assessment material are also on the Moodle sites.

All modules will be taught by experienced staff, many of whom make use of materials and topics raised through their professional research or consultancy activities. Many case studies and examples of applications are based on real industrial situations.
A variety of assessment methods are used throughout the programme. These include critical investigations of problems within industry, and proposal of possible solutions, laboratory reports, individual and group presentations and formal examinations.

Both group project work and individual project work are incorporated into the curriculum, enabling students to develop and demonstrate essential employment skills.

External and Internal Reference Points Used to Inform Programme Outcomes
The QAA Subject Benchmark statements for Computing have been used to inform the levels of competence that would be expected of a graduate from this Master programme.
Scottish Credit and Qualifications Framework (SCQF) were used to help frame the general learning outcomes for the programme and for modules. The BCS's requirements for specialist Masters courses accredited for CITP Further Learning and for partial fulfilment of the educational requirements for CEng have also been used. The Engineering Council's document "UK Standard for Professional Engineering Competence" has also been used to help frame the learning outcomes at MSc level.
The use of the above external reference points was aimed at ensuring broad comparability with other related programmes in the HE sector.
The UWS Regulatory Framework Section 5 Regulations for Programmes of Study leading to the University's Academic Awards are outlined in Section 5.2.13.

[1] http://www.cxotoday.com/story/iot-market-to-hit-71-trillion-by-2020-idc/
[2] http://www.gartner.com/newsroom/id/2636073
[3] https://www.idc.com/prodserv/4Pillars/bigdata

All modules on the programme are subject to change.

Typical Delivery Method

This programme is delivered in both full and part time bases. The programme also embraces hybrid learning which offers flexibility for students and more efficient use of synchronous (virtual or face-to-face) lessons, thereby maximising engagement.

Any additional costs
There is no mandatory cost however optional cost can vary from £200 to £1000

Graduate Attributes, Employability & Personal Development Planning

This programme has been specifically designed considering the UWS Graduate Attributes of Universal, Work ready, and Successful. Details to these attributes is available at UWS Graduate Attributes webpage.

Students will be supported in accordance with the Personal Development Planning and Policy Framework of the University. Personal Development Planning is embedded within the programme with links to each module. PDP will be introduced at the beginning of the programme and will be supported with regular workshops for the class. A range of coursework exercises will be identified and used to give students the opportunity to reflect upon their performance and plan for the next cycle of PDP.

Employability skills will be built into the programme at a variety of points in many different ways. Industrial and research methods employed in smart network development will be a frequent theme of examples in class and in the laboratory exercises. Generic skills that are transferable to many field of employment are embedded throughout the programme and are listed in some detail in the module descriptors. All the core modules will ensure that research-informed materials are delivered with research skills demonstrated wherever appropriate. There will also be specialist teaching input from industry wherever possible ensuring up-to-date content for certain topics.

The University Student Link service is available to help all students with advice, resources and assistance in many areas affecting employability. Personal planning, personal finance, time management, career advice, interview preparation and assistance with preparing CVs are some of the areas they can assist with. Services include advice and support on career planning, graduate recruitment, placement, part time work, summer jobs and volunteering. For full time students in particular, the Careers adviser works with staff to deliver a series of workshops aimed at helping graduates seek employment.

Work Based Learning/Placement Details

Opportunities for industry focused learning activities have been built into some of the modules of the programme enabling students to engage with employers. These include 'live' case studies, problem-solving scenarios, and individual work-related projects. Some industry and research based placement will be offered in the programme.

Attendance and Engagement

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

The engagement and attendance requirements of individual modules are detailed in the module descriptors.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

In alignment with the University's commitment to equality and diversity, this programme actively promotes equal opportunities for students from all backgrounds and with diverse learning needs. Learning materials will be delivered via the Virtual Learning Environment (VLE) in electronic formats that support flexible access and allow for content manipulation to suit individual requirements.

Module coordinators are responsible for ensuring that all University-created materials use inclusive and culturally sensitive language. However, it should be noted that some external

resources, such as textbooks or websites, may contain outdated or non-inclusive terminology. Students will be informed of this where applicable.

The programme adheres to the University's regulations and guidance on inclusive learning and teaching practices. Students are encouraged to consult the relevant module coordinator to discuss any specific needs. This will enable appropriate arrangements to be made regarding assistive technologies, support services, or assessment adjustments, in line with University policies.

Module coordinators will also ensure that all teaching resources are appropriate to the mode of delivery for each module. For laboratory-based modules, where access to physical devices or hardware may not be possible, suitable alternatives such as emulators and virtual software will be provided to ensure that all students have equitable access to essential tools and resources.

More information on the University's EDI policies can be accessed at Equality, Diversity & Inclusion

Programme structures and requirements, SCQF level, term, module name and code, credits and awards (Chapter 1, Regulatory Framework)

Learning Outcomes

SCQF LEVEL 11 - Postgraduate Certificate (PgCert) Learning Outcomes	
Knowledge and Understanding	
A1	Demonstrate good knowledge of advanced computing
A2	Carry out work that evidences a critical understanding of the practical aspects of advanced computing provision
A3	Demonstrate a critical awareness of the capabilities of relevant technologies
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Apply a range of principal methodologies covered in the modules to identify requirements in planning advanced computing
B2	Investigate, compare and evaluate advanced computing
B3	Apply a range of techniques/tools to support the development and/or management of advanced computing and document relevant information
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Interpret and analyse advanced computing sets and information using ICT methods
C2	Communicate information effectively with different audiences using a range of appropriate methods
C3	
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Evaluate the performance of advanced computingthrough laboratory work
D2	Demonstrate an advanced working knowledge of recent advances in advanced computing and present findings in report format
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Demonstrate leadership and/or partnership in the planning and delivery individual work and group work
E2	Demonstrate a high level of understanding of the needs of the business and how to work with colleagues to design and explain advanced computing strategies

E3	
E4	
E5	

Postgraduate Certificate (PgCert) Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Core Modules							

Postgraduate Certificate (PgCert) Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
11	COMP11068	Advanced Data Science	20	☒	☐	☐	
11	COMP11069	Data Mining and Visualisation	20	☐	☒	☐	
11	COMP11060	Emerging Topics in Computing	10	☐	☒	☐	
11	COMP11001	Professional Computing Ethics	10	☒	☒	☐	
11	COMP11071	Intelligent Systems	20	☐	☒	☐	
11	COMP11062	Mobile Networks and Smartphone Applications	20	☒	☐	☐	
11	COMP11137	Software Design for AI-Driven System	10	☒	☒	☐	
11	COMP11017	Research Design and Methods	10	☒	☒	☐	
11	COMP11138	Generative AI: Theory and Applications	20	☒	☐	☐	
11	COMP11127	AI and Applications	20	☐	☒	☐	
Footnotes for Option Modules Justification on Knowledge and Understanding learning outcomes of PgC and how learning outcomes of the optional modules deliver them (provided in module descriptors).							

Level 11- Postgraduate Certificate (PgCert)
Criteria for Award
Please refer to UWS Regulatory Framework for related regulations

The criteria for the Award of Postgraduate Certificate are defined in the University Regulatory Framework.

There is no specific progression decision needed after the first trimester, as all students are registered for the MSc. The Postgraduate Certificate is available as an exit award:

Postgraduate Certificate (PgC) in Advanced Computing/ in Combined Studies.

For PgC in Advanced Computing/ in Combined Studies, 60 credit points of which a minimum of 40 are at SCQF 11 and none less than SCQF level 10.

- Students are required to pass three of the optional modules from those listed above.

SCQF LEVEL 11 - Postgraduate Diploma (PgDip) Learning Outcomes	
Knowledge and Understanding	
A1	Demonstrate a critical and deep understanding and practical ability in examining the current and emerging techniques, standards, methodologies and tools that support the development of advanced computing
A2	Analyse business requirements, choose from and justify the choice of different smart networking approaches by analysing the benefits and risks for a given advanced computing strategy, and recommend appropriate standard-based solutions
A3	Develop and deploy advanced computing solutions using suitable methodologies, technologies, software tools etc.
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Apply skills to configure advanced computing devices or technologies, and deploy/develop applications that meet standards
B2	Analyse a given business scenario in order to offer recommendations on how best to develop the advanced computing solutions
B3	
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Analyse and interpret complex information relating to the development, management and evaluation of advanced computing solutions using ICT methods
C2	Produce and present numerical results regarding advanced computing, e.g., in performance evaluation
C3	Communicate information and justifying the chosen advanced computing strategy to stakeholders effectively with different audiences using a range of appropriate methods
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Carry out critical analysis, evaluation and synthesis of strategies meeting a given set of requirements
D2	Prepare reports that demonstrate a working knowledge of recent advances in advanced computing
D3	Demonstrate ability to develop and implement solutions to practical problems
D4	Analyse and critically review research in a specific area of advanced computing
D5	
Autonomy, Accountability and Working with Others	
E1	Demonstrate leadership in the planning and delivery individual work and group work
E2	Work in ways that demonstrates critical reflection upon roles and responsibilities

E3	Demonstrate a high level of understanding of the needs of the business and how to work with non-technical senior colleagues to design and explain advanced computingstrategies
E4	Demonstrate the ability to work in a professional manner and be able to make informed judgements relating to professional issues including ethical considerations
E5	

Postgraduate Diploma (PgDip) Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
11	COMP11069	Data Mining and Visualisation	20	☐	☒	☐	
11	COMP11060	Emerging Topics in Computing	10	☐	☒	☐	
11	COMP11001	Professional Computing Ethics	10	☒	☒	☐	
11	COMP11062	Mobile Networks and Smartphone Applications	20	☒	☐	☐	
11	COMP11137	Software Design for AI-Driven System	10	☒	☒	☐	
11	COMP11017	Research Design and Methods	10	☒	☒	☐	
Footnotes for Core Modules							

Postgraduate Diploma (PgDip) Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
11	COMP11068	Advanced Data Science	20	☒	☐	☐	
11	COMP11071	Intelligent Systems	20	☐	☒	☐	
11	COMP11127	AI and Applications	20	☐	☒	☐	
11	COMP11138	Generative AI: Theory and Applications	20	☒	☐	☐	
11	COMP11058	Advanced Wireless Networking Technologies	20	☒	☐	☐	
11	COMP11061	Internet of Things (IoT) and Applications	20	☐	☒	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Option Modules							

Level 11- Postgraduate Diploma (PgDip)

Criteria for Award *Please refer to UWS Regulatory Framework for related regulations*
The criteria for the Award of Postgraduate Diploma are defined in the University Regulatory Framework. For a PgD advanced computing, at least 120 credits are required of which a minimum of 100 are at least at SCQF level 11 and none below SCQF level 10.

SCQF LEVEL 11 – Masters Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	Produce an MSc project specification, and write a detailed, well-argued and coherent thesis of a sustained independent work of high quality that fulfils an agreed specification
A2	Demonstrate a systematic and critical understanding of the approaches available to address problems and create knowledge and useful artefacts within the advanced computing/Big Data/IoT/eHealth subject areas, and of the underlying theoretical assumptions and concepts of such approaches
A3	Demonstrate an ability to select and apply in a critical and reflective fashion, appropriate research and/or development techniques in producing a solution or solutions to a practical problem in the advanced computing/Big Data/IoT/eHealth subject area
A4	Critically and reflectively plan and execute an advanced computing/Big Data/IoT/eHealth related project to develop an artefact that is fit for purpose in addressing a stated problem
A5	Understand the design/research aspects of smart networking algorithm/protocol development
Practice - Applied Knowledge and Understanding	
B1	Apply appropriate theoretical and practical methods to the analysis and solution of advanced computing/Big Data/IoT/AI
B2	Identify potential projects and opportunities for enhancing advanced computing/Big Data/IoT/AI
B3	Conduct appropriate research and undertake design and development of advanced computing/Big Data/IoT/AI solutions
B4	Implement solutions in accordance with designs and evaluate their effectiveness
B5	
Communication, ICT and Numeracy Skills	
C1	Communicate in English with others at all levels
C2	Present and discuss proposals on strategic matters, leading and sustaining debate and feed results back to improve proposals
C3	Demonstrate personal and social skills and awareness of the concerns of others
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Plan and evaluate programs of laboratory work relating to advanced computing/Big Data/IoT/AI
D2	Demonstrate ability to develop and implement creative solutions to practical problems
D3	Analyse and critically review data from various analyses in the context of advanced computing/Big Data/IoT/AI
D4	
D5	

Autonomy, Accountability and Working with Others	
E1	Provide technical and commercial leadership
E2	Demonstrate potential to plan, budget organise, direct and control tasks, people and resources
E3	Demonstrate a personal commitment to professional standards, codes of conduct, safe systems of work, contributing to sustainable development, and continuing professional development
E4	
E5	

Masters Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
11	COMP11069	Data Mining and Visualisation	20	☐	☒	☐	
11	COMP11060	Emerging Topics in Computing	10	☐	☒	☐	
11	COMP11001	Professional Computing Ethics	10	☒	☒	☐	
11	COMP11024	Masters Project	60	☒	☒	☒	
11	COMP11017	Research Design and Methods	10	☒	☒	☐	

Footnotes for Core Modules

Details of Dissertation/Project Requirements

The choice of topic for the MSc Project is made by the student in consultation with the MSc Project coordinator, academic staff and Programme Leader that the student may have consulted with. The topic is normally related to the subjects and content covered during the PgC/PgD stage of the programme. At the start of the MSc Project the student will be allocated a specific supervisor and moderator with experience and expertise in the student's chosen topic for the duration of the MSc project module.

1. To produce an MSc Project Specification that meets the approval of a panel of academic reviewers in the School.

2. To produce an interim report approximately at the half-way point of the project, containing an early draft of the literature review as well as comprehensive description of the project methodology to be used, and forward plan for the completion of the project.

3. To submit a dissertation of approximately 18,000 words in which the following areas are typically expected to be addressed: subject literature is critically reviewed, full project methodology is described, collected data and results are published, or prototype systems are developed and evaluated, and a critique incorporating recommendations suggested by the research results, a self-assessment and recommendations for further work on the topic are included.

Masters Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
11	COMP11068	Advanced Data Science	20	☒	☐	☐	
11				☐	☐	☐	
11	COMP11071	Intelligent Systems	20	☐	☒	☐	
11				☐	☐	☐	
11	COMP11127	AI and Applications	20	☒	☐	☐	
11	COMP11137	Software Design for AI-Driven System	10	☒	☒	☐	
11	COMP11138	Generative AI: Theory and Applications	20	☒	☐	☐	
11	COMP11062	Mobile Networks and Smartphone Applications	20	☒	☐	☐	
11	COMP11058	Advanced Wireless Networking Technologies	20	☒	☐	☐	
11	COMP11061	Internet of Things (IoT) and Applications	20	☐	☒	☐	

Footnotes:

All the students will enrol in Advanced Computing framework with named exit awards for Big Data, IoT, and AI. However the students will only be eligible to these exit awards on the successful completion of 2 specialised modules and a project in the same area.

For MSc Big data, the following core and optional modules need successful completion of "Advanced Data Science", "Intelligent Systems" and "Master project" relevant to title.

For MSc IoT, the following core and optional modules need successful completion of "Advanced Wireless Networking Technologies"; either "AI and Applications", or" Internet of Things (IoT) and Applications" and Master project relevant to title.

For MSc AI, the following core and optional modules need successful completion of "Generative AI: Theory and Applications"; either "AI and Applications", or"Intelligent Systems" and Master project relevant to title.

For MSc Advanced Computing, any 2 optional modules need successful completion.

Level 11- Masters
Criteria for Award
Please refer to UWS Regulatory Framework for related regulations

The criteria for the Award of Masters are defined in the University Regulatory Framework.

Credit points at least 180 credits of which a minimum of 150 are at least at level 11 and none below level 10.

All the students will enrol in Advanced Computing framework with named exit awards for Big Data, IoT and AI. However the students will only be eligible to these exit awards on the successful completion of 100 specialist credits which constitute of 2 optional modules and a project in the same area (Big Data, IoT, and AI). For students who take varied combination will exit with Advanced Computing exit award.

Regulations of Assessment

Candidates will be bound by the general assessment regulations of the University as specified in the University Regulatory Framework.

An overview of the assessment details is provided in the Student Handbook and the assessment criteria for each module is provided in the module descriptor which forms part of the module pack issued to students. For further details on assessment please refer to Chapter 3 of the Regulatory Framework.

To qualify for an award of the University, students must complete all the programme requirements and must meet the credit minima detailed in Chapter 1 of the Regulatory Framework.

Combined Studies

There may be instances where a student has been unsuccessful in meeting the award criteria for the named award and for other more generic named awards existing within the school.

Provided that they have met the credit requirements in line with the SCQF credit minima (please see Regulation 1.21), they will be eligible for a Combined Studies award (please see Regulation 1.61).

For students studying at Level 11, they will normally be eligible for an exit award of PgCert / PgDip / Masters in Combined Studies.

Version no: 1

Change/Version Control

What	When	Who
Update to title of COMP11001	31/03/2025	A Adamson
Campuses Added	14/04/26	N Ramzan
Aula updated to VLE	14/04/26	N Ramzan
Number of changes made along with PG Cert and PG Dip in Combined Studies	22/04/2026	N Ramzan