

University of the West of Scotland

Postgraduate Programme Specification

Session: 2023/24

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Status: Published

Named Award Title:	MSc Information Technology (with Pathways)
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Award Title for Each Award:	MSc Information Technology (with Pathways) PG Dip Information Technology (with Pathways) PG Cert Information Technology (or Pathway)
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Date of Validation:	December 2022
Details of Cohorts Applies to:	This Programme Specification applies to students who enrol on this Programme from Term 1, Academic Year 2023-24 (September 2023) onwards.

Awarding Institution/Body:	University of the West of Scotland
Teaching Institution:	University of the West of Scotland
Language of Instruction & Examination:	English
Award Accredited By:	Accreditation will be sought from the British Computer Society
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.
Mode of Study:	Full Time Part Time
Campus:	London Paisley

School:	School of Computing, Engineering and Physical Sciences
Programme Board	Computing
Programme Leader:	Graeme McRobbie

Admission 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:

Appropriate Undergraduate Qualification

To qualify to register for an Masters degree, a candidate must have a non-IT bachelor's degree that is considered to be at least comparable to a UK second-class honours degree from a recognised institution.

Other Required Qualifications/Experience

Candidates who have other academic, vocational, or professional qualifications, and candidates who have at least two years of industrial experience in an Information Technology role will be considered. A decision on a candidate's eligibility to register will be made on a case-by-case basis by the Programme Admissions Officer.

Candidates may be required to attend an interview. The Recognition of Prior Learning Guidelines (as laid down in the University's Recognition of Prior Learning Handbook) will be applied. We welcome applications from international students with equivalency of qualifications.

Further desirable skills pre-application

It is expected that candidates' qualifications/or experience will be in a variety of domains cognate with Information Technology.

General Overview

The following titles are offered as part of the pathway suite.

MSc Information Technology (with Pathways):

- MSc Information Technology¹
- MSc Information Technology with Cloud Computing³
- MSc Information Technology with Data Analytics¹
- MSc Information Technology with Financial Technologies³
- MSc Information Technology with Healthcare Technologies³
- MSc Information Technology with Information Security²
- MSc Information Technology with Project Management¹
- MSc Information Technology with Web Development²

PG Dip Information Technology (with Pathways)

- PG Dip Information Technology¹
- PG Dip Information Technology with Cloud Computing³
- PG Dip Information Technology with Data Analytics¹
- PG Dip Information Technology with Financial Technologies³
- PG Dip Information Technology with Healthcare Technologies³
- PG Dip Information Technology with Information Security²
- PG Dip Information Technology with Project Management¹
- PG Dip Information Technology with Web Development²

PG Cert Information Technology (or Pathways)

- PG Cert Information Technology¹
- PG Cert Cloud Computing³
- PG Cert Data Analytics¹
- PG Cert Financial Technologies³
- PG Cert Healthcare Technologies³
- PG Cert Information Security²
- PG Cert Project Management¹
- PG Cert Web Development²

¹Available at Paisley and London Campuses from Term 1, Academic Year 2023-24 (September 2023)

²Available at Paisley Campus from Term 1, Academic Year 2023-24 (September 2023)

³Available at Paisley Campus from Term 1, Academic Year 2024-25 (September 2024)

Overview

Our MSc Information Technology is ideal if you have a degree in a subject other than Information Technology or computing and would like to develop much sought-after business-relevant Information Technology knowledge and skills.

The MSc Information Technology will help you to become a modern Information Technology professional who can analyse, design, deploy, utilise, and manage business-relevant Information Technology-based systems and services. You will enhance your understanding of modern Information Technology-based business systems and learn how to address related development, acquisition, and deployment issues in modern organisations.

The MSc Information Technology examines issues, trends, current practices, and technological alternatives in the field of business Information Technology and provides you with up-to-date technological and business skills, and specialist knowledge to help you design and implement appropriate, Information Technology-driven solutions in ways that address the needs of modern business organisations.

The MSc Information Technology provides a common foundation in Information Technology to all students. This is then followed by a selection of modules that depend upon your own future career goals and aspirations.

Students can specialise in one of the following streams: Cloud Computing; Data Analytics; Financial Technologies; Healthcare Technologies; Information Security; Project Management; or Web Development.

Graduates will be able to either take up posts with large employers in both private and public sectors or be able to work within the SME domain. The skill set and specialist knowledges provided will enable graduates to work in either a direct Information Technology systems development and deployment capacity, or in a more management-oriented role within a project team. This programme provides a qualification that can lead to job titles including 'Technology Manager', 'Information Technology Consultant', 'Business Analyst', 'Database Developer' and 'eBusiness Developer'.

Further studies in Information Technology may be undertaken through research degrees such as MPhil and/or PhD. Additionally, the School of Computing, Engineering and Physical Sciences offers a progression route for developing further industry-specific technical skills through accredited programmes with Microsoft, Cisco, Oracle, SAP, and others.

Teaching & Learning will employ face to face large and small group delivery and activities supported using a virtual learning environment, in this instance Aula. Small group tutorials are favoured as they are key to the development of behavioural and effective competencies needed by employers, "to develop reflective Information Technology practitioners engaging in purposeful activity for the benefit of the business or organisation".

The programme team recognises the need to maintain a focus on technological developments and the creation of modules of study and development to provide the latest set of technical skills and also recognises the need for the business contexts within which these skills and competencies can develop. Case studies are employed throughout the programme to provide such context. Effective team working is a critical theme.

Assessments are geared towards assessing (and developing) not just the technical skills but also the types of competencies described above. Modules will make use of instruments of assessment aimed at the individual and at the group level. Course works, class tests, and formal examinations will be employed.

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.

Graduate Attributes, Employability & Personal Development Planning

This programme has been specifically designed considering the UWS Graduate Attributes of Universal, Work ready, and Successful. Details of these attributes are available at <https://www.uws.ac.uk/current-students/your-graduate-attributes/>.

Employability skills are built into the programme at a variety of stages in many ways. Generic skills that are transferable to many fields of employment are embedded throughout the programme and are listed in some detail in the module descriptors. At the end of the programme, graduates will have produced a portfolio of work which will contribute towards their Personal Development Planning.

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

The UWS Careers Team will be available to help students achieve their career goals by providing professional careers education, information, advice, and guidance. All enrolled students are automatically registered with the UWS Careers & Academic Skills Website where they will find a wide variety of resources for Career and Academic Skills Development, as well as an online calendar for booking appointments and events.

Key career resources include:

- self-awareness – to help students understand their skills, values, motivations, and interests
- explore your options – various resources to help students explore their career options
- career planning and decision making – to help students establish career goals and decide on the next steps to get there
- develop your employability – support to help students gain the experience and skills employers are looking for
- job searching – knowing where and how to look for job opportunities is key to a successful job search

- CVs and Job Applications – support for developing a student’s CV, writing cover letters, and completing job application forms
- preparing for interviews and other recruitment processes – tips for preparation, an interview simulator and practice aptitude/psychometric tests
- and specific information for international students and students with a disability or other protected characteristics

Work Based Learning/Placement Details

Placements may also be available for the Masters Project. There is a history of postgraduate students picking up projects through the University’s industrial contacts. Several postgraduate students have become employees of the University recognising not only the worth of this programme in engendering valuable Information Technology skills and knowledge but also the project work that they have undertaken.

Engagement

In line with the **Academic Engagement Procedure**, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time.

Where a programme has Professional, Statutory or Regulatory Body requirements these will be listed here:

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

Equality and Diversity

Further information on the institutional approach to Equality, Diversity and Inclusion can be accessed at the following link: <https://www.uws.ac.uk/about-uws/uws-commitments/equality-diversity-inclusion/>

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

A. PG Cert

Learning Outcomes (Maximum of 5 per heading)

Knowledge and Understanding	
A1	Demonstrate extensive knowledge of either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development
A2	Carry out work that evidences a critical understanding of the practical aspects of either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development
A3	Demonstrate a critical awareness of the capabilities of relevant technologies
Practice - Applied Knowledge and Understanding	
B1	Apply a range of principal methodologies covered in the modules to identify requirements in planning solutions to either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development problems
B2	Investigate, compare, and evaluate either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development protocols, architectures, and applications
B3	Apply a range of techniques/tools to support the development and/or management of either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development and document relevant information

Communication, ICT and Numeracy Skills

C1	Interpret and analyse either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development information using ICT methods
C2	Communicate information effectively with different audiences using a range of appropriate methods
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Evaluate the performance of either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development technologies through laboratory work
D2	Demonstrate an advanced working knowledge of recent advances in either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development and present findings in report format
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 either Information Technology, Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development strategies

Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	COMP11107	Business Data Communication and Networks	20				1
11	COMP11109	Database Design & Implementation	20				2
11	COMP11113	Information Systems Analysis and Design	20				3
11	COMP11115	Internet and Cloud Computing	20				4
11	COMP11104	Agile Cloud Automation	20				5
11	COMP11108	Data Analysis and Visualisation	20				6
11	COMP11122	Data Mining and Business Intelligence	20				7
11	COMP11110	Digital Finance	20				8
11	COMP11106	Blockchain Technologies for Finance	20				9
11	COMP11105	An Introduction to eHealth	20				10
11	COMP11111	eHealth: Assessment from a Distance	20				11
11	COMP11118	Network Security Issues	20				12
11	COMP11123	Enterprise Cybersecurity Management	20				13
11	COMP11114	Information Technology Project Management	20				14
11	COMP11112	Enterprise Architecture	20				15
11	COMP11121	Web Application Development	20				16
11	COMP11120	Server-Side Web Development	20				17

* Indicates that module descriptor is not published.

Footnotes

1. Core module for PG Cert Information Technology and the Pathways. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
2. Core module for PG Cert Information Technology and the Pathways. Available at Paisley and London campuses

T1&T3 AY 2023-24 and T2 AY 2024-25

3. Core module for PG Cert Information Technology and the Pathways. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
4. Core module for PG Cert Cloud Computing. Only available at Paisley Campus T2 AY 2024-25
5. Core module for PG Cert Cloud Computing. Only available at Paisley Campus T1&T3 AY 2024-25
6. Core module for PG Cert Data Analytics. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
7. Core module for PG Cert Data Analytics. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
8. Core module for PG Cert Financial Technologies. Only available at Paisley Campus T2 AY 2024-25
9. Core module for PG Cert Financial Technologies. Only available at Paisley Campus T1&T3 AY 2024-25
10. Core module for PG Cert Healthcare Technologies. Only available at Paisley Campus T2 AY 2024-25
11. Core module for PG Cert Healthcare Technologies. Only available at Paisley Campus T1&T3 AY 2024-25
12. Core module for PG Cert Information Security. Only available at Paisley campus T1&T3 AY 2023-24 and T2 AY 2024-25
13. Core module for PG Cert Information Security. Only available at Paisley Campus T2 AY 2023-24 and T1&T3 AY 2024-25
14. Core module for PG Cert Project Management. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
15. Core module for PG Cert Project Management. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
16. Core module for PG Cert Web Development. Only available at Paisley campus T1&T3 AY 2023-24 and T2 AY 2024-25
17. Core module for PG Cert Information Security. Only available at Paisley Campus T2 AY 2023-24 and T1&T3 AY 2024-25

Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	COMP11116	IT Strategy and Management	20				1
11	COMP11124	Object Orientated Programming	20				2
11	COMP11125	Work Based Learning	20				1, 2

* Indicates that module descriptor is not published.

Footnotes

1. IT Strategy and Management, Object Orientated Programming, and Work Based learning are the recommended options for the specialist pathway programmes. Other modules can be selected where there is up to a 20-credit deficit of optional modules, where the programme learning outcomes can be met, and in discussion with the Programme Leader. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25.
2. To enrol on this module, a student would normally be working in an Information Technology setting prior to the commencement of the module. Prior to enrolling on this module, a project must be selected and arranged by, and agreed with, the client, university and student and supported by a tripartite agreement. The tripartite agreement will define specific learning and practice outcomes for the student and confirm required elements of support and commitment from all parties.

Criteria for Progression and Award

The criteria for the award of a Postgraduate Certificate are defined in the University Regulatory Framework: 60 credit points of which a minimum of 40 are at SCQF 11 and none less than SCQF level 10.

For the PG Cert Information Technology, students are required to pass three of the core modules from those listed above.

For the PG Cert in a Specialist Pathway, students are required to pass the two core modules in that specialist pathway and any one of the optional modules from those listed above.

B. PG Dip

Learning Outcomes (Maximum of 5 per heading)

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 Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development)

A2	Analyse business requirements, choose from and justify the choice of different smart networking approaches by analysing the benefits and risks for a given Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) strategy, and recommend appropriate standard-based solutions
A3	Develop and evaluate Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) solutions using suitable methodologies, technologies, and software tools
Practice - Applied Knowledge and Understanding	
B1	Apply skills to configure Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) devices or technologies, and deploy/develop applications that meet standards
B2	Analyse a given business scenario to offer recommendations on how best to develop Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) solutions
Communication, ICT and Numeracy Skills	
C1	Analyse and interpret complex information relating to the development, management, and evaluation of Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) solutions using appropriate methods
C2	Produce and present performance evaluation results regarding Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) solutions
C3	Communicate information and justifying the chosen performance evaluation strategies to stakeholders effectively with different audiences using a range of appropriate methods
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 Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development)
D3	Demonstrate ability to develop and implement solutions to practical problems
D4	Analyse and critically review research in a specific area of Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development)
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 Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) strategies
E4	Demonstrate the ability to work in a professional manner and be able to make informed judgements relating to professional issues including ethical considerations

Core Modules

SCQF Level	Module Code	Module Name	Credit	Term	Footnotes
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				1	2	3	
11	COMP11107	Business Data Communication and Networks	20				1
11	COMP11109	Database Design & Implementation	20				2
11	COMP11113	Information Systems Analysis and Design	20				3
11	COMP11115	Internet and Cloud Computing	20				4
11	COMP11104	Agile Cloud Automation	20				5
11	COMP11108	Data Analysis and Visualisation	20				6
11	COMP11122	Data Mining and Business Intelligence	20				7
11	COMP11110	Digital Finance	20				8
11	COMP11106	Blockchain Technologies for Finance	20				9
11	COMP11105	An Introduction to eHealth	20				10
11	COMP11111	eHealth: Assessment from a Distance	20				11
11	COMP11118	Network Security Issues	20				12
11	COMP11123	Enterprise Cybersecurity Management	20				13
11	COMP11114	Information Technology Project Management	20				14
11	COMP11112	Enterprise Architecture	20				15
11	COMP11121	Web Application Development	20				16
11	COMP11120	Server-Side Web Development	20				17

* Indicates that module descriptor is not published.

Footnotes

1. Core module for PG Dip Information Technology. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
2. Core module for PG Dip Information Technology. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
3. Core module for PG Dip Information Technology. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
4. Core module for PG Dip Cloud Computing (and optional for the PG Dip Information Technology). Only available at Paisley Campus T2 AY 2024-25
5. Core module for PG Dip Cloud Computing (and optional for the PG Dip Information Technology). Only available at Paisley Campus T1&T3 AY 2024-25
6. Core module for PG Dip Data Analytics (and optional for the PG Dip Information Technology). Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
7. Core module for PG Dip Data Analytics (and optional for the PG Dip Information Technology). Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
8. Core module for PG Dip Financial Technologies (and optional for the PG Dip Information Technology). Only available at Paisley Campus T2 AY 2024-25
9. Core module for PG Dip Financial Technologies (and optional for the PG Dip Information Technology). Only available at Paisley Campus T1&T3 AY 2024-25
10. Core module for PG Dip Healthcare Technologies (and optional for the PG Dip Information Technology). Only available at Paisley Campus T2 AY 2024-25
11. Core module for PG Dip Healthcare Technologies (and optional for the PG Dip Information Technology). Only available at Paisley Campus T1&T3 AY 2024-25
12. Core module for PG Dip Information Security (and optional for the PG Dip Information Technology). Only available at Paisley campus T1&T3 AY 2023-24 and T2 AY 2024-25
13. Core module for PG Dip Information Security (and optional for the PG Dip Information Technology). Only available at Paisley Campus T2 AY 2023-24 and T1&T3 AY 2024-25
14. Core module for PG Dip Project Management (and optional for the PG Dip Information Technology). Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
15. Core module for PG Dip Project Management. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
16. Core module for PG Dip Web Development (and optional for the PG Dip Information Technology). Only available at Paisley campus T1&T3 AY 2023-24 and T2 AY 2024-25
17. Core module for PG Dip Information Security (and optional for the PG Dip Information Technology). Only available at Paisley Campus T2 AY 2023-24 and T1&T3 AY 2024-25

Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	COMP11116	IT Strategy and Management	20				1
11	COMP11124	Object Orientated Programming	20				2
11	COMP11125	Work Based Learning	20				1, 2

* Indicates that module descriptor is not published.

Footnotes

1. IT Strategy and Management, Object Orientated Programming, and Work Based learning are the recommended options for the specialist pathway programmes. Other modules can be selected where there is up to a 20-credit deficit of optional modules, where the programme learning outcomes can be met, and in discussion with the Programme Leader. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25.

2. To enrol on this module, a student would normally be working in an Information Technology setting prior to the commencement of the module. Prior to enrolling on this module, a project must be selected and arranged by, and agreed with, the client, university and student and supported by a tripartite agreement. The tripartite agreement will define specific learning and practice outcomes for the student and confirm required elements of support and commitment from all parties.

Criteria for Progression and Award

The criteria for the award of a Postgraduate Diploma (PG Dip) are defined in the University Regulatory Framework: 120 credit points of which a minimum of 90 are at SCQF 11 and none less than SCQF level 10.

For the PG Dip Information Technology, students are required to pass the three core IT modules, any two of the specialist pathway modules, and any one of the optional modules from those listed above.

For the PG Dip Information Technology with a Specialist Pathway, students are required to pass the three core IT modules, the two core modules in that specialist pathway, and any one of the optional modules from those listed above.

(Awards shall be made with Distinction to candidates who meet the criteria laid in University Regulations 3.25-3.26.)

C. 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 Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) 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 Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) subject area
A4	Critically and reflectively plan and execute an Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) related project to develop an artefact that is fit for purpose in addressing a stated problem
Practice - Applied Knowledge and Understanding	
B1	Apply appropriate theoretical and practical methods to the analysis and solution of Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) problems
B2	Identify potential projects and opportunities for enhancing Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) systems

B3	Conduct appropriate research and undertake design and development of Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) solutions
B4	Implement solutions in accordance with designs and evaluate their effectiveness
Communication, ICT and Numeracy Skills	
C1	Communicate with others at all levels
C2	Present and discuss proposals on strategic matters, leading and sustaining debate and feeding results back to improve proposals
C3	Demonstrate personal and social skills and awareness of the concerns of others
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Plan and evaluate programs of laboratory work relating to Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) systems development
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 Information Technology (with optional specialisms in either Cloud Computing, Data Analytics, Financial Technologies, Healthcare Technologies, Information Security, Project Management or Web Development) systems
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

Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	COMP11107	Business Data Communication and Networks	20				1
11	COMP11109	Database Design & Implementation	20				2
11	COMP11113	Information Systems Analysis and Design	20				3
11	COMP11115	Internet and Cloud Computing	20				4
11	COMP11104	Agile Cloud Automation	20				5
11	COMP11108	Data Analysis and Visualisation	20				6
11	COMP11122	Data Mining and Business Intelligence	20				7
11	COMP11110	Digital Finance	20				8
11	COMP11106	Blockchain Technologies for Finance	20				9
11	COMP11105	An Introduction to eHealth	20				10
11	COMP11111	eHealth: Assessment from a Distance	20				11
11	COMP11118	Network Security Issues	20				12
11	COMP11123	Enterprise Cybersecurity Management	20				13
11	COMP11114	Information Technology Project Management	20				14
11	COMP11112	Enterprise Architecture	20				15
11	COMP11121	Web Application Development	20				16

11	COMP11120	Server-Side Web Development	20				17
11	COMP11117	MSc Masters Project	60				18

* Indicates that module descriptor is not published.

Footnotes

1. Core module for Masters Information Technology and the Pathways. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
2. Core module for Masters Information Technology and the Pathways. Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
3. Core module for Masters Information Technology and the Pathways. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
4. Core module for Masters Cloud Computing (and optional for the Masters Information Technology). Only available at Paisley Campus T2 AY 2024-25
5. Core module for Masters Cloud Computing (and optional for the Masters Information Technology). Only available at Paisley Campus T1&T3 AY 2024-25
6. Core module for Masters Data Analytics (and optional for the Masters Information Technology). Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
7. Core module for Masters Data Analytics (and optional for the Masters Information Technology). Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
8. Core module for Masters Financial Technologies (and optional for the Masters Information Technology). Only available at Paisley Campus T2 AY 2024-25
9. Core module for Masters Financial Technologies (and optional for the Masters Information Technology). Only available at Paisley Campus T1&T3 AY 2024-25
10. Core module for Masters Healthcare Technologies (and optional for the Masters Information Technology). Only available at Paisley Campus T2 AY 2024-25
11. Core module for Masters Healthcare Technologies (and optional for the Masters Information Technology). Only available at Paisley Campus T1&T3 AY 2024-25
12. Core module for Masters Information Security (and optional for the Masters Information Technology). Only available at Paisley campus T1&T3 AY 2023-24 and T2 AY 2024-25
13. Core module for Masters Information Security (and optional for the Masters Information Technology). Only available at Paisley Campus T2 AY 2023-24 and T1&T3 AY 2024-25
14. Core module for Masters Project Management (and optional for the Masters Information Technology). Available at Paisley and London campuses T1&T3 AY 2023-24 and T2 AY 2024-25
15. Core module for Masters Project Management. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
16. Core module for Masters Web Development (and optional for the Masters Information Technology). Only available at Paisley campus T1&T3 AY 2023-24 and T2 AY 2024-25
17. Core module for Masters Information Security (and optional for the Masters Information Technology). Only available at Paisley Campus T2 AY 2023-24 and T1&T3 AY 2024-25
18. Core module for Masters Information Technology and the Pathways. Available at Paisley and London campuses from T3 AY 2023-24. Module every term thereafter. For the MSc Information Technology programme, students must undertake a project in the field of Information Technology. For the Information Technology with Specialist Pathway programmes, students must undertake a project in the field of the Specialist Pathway.

Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	COMP11116	IT Strategy and Management	20				1
11	COMP11124	Object Orientated Programming	20				2
11	COMP11125	Work Based Learning	20				1, 2

* Indicates that module descriptor is not published.

Footnotes

1. IT Strategy and Management, Object Orientated Programming, and Work Based learning are the recommended options for the specialist pathway programmes. Other modules can be selected where there is up to a 20-credit deficit of optional modules, where the programme learning outcomes can be met, and in discussion with the Programme Leader. Available at Paisley and London campuses T2 AY 2023-24 and T1&T3 AY 2024-25
2. To enrol on this module, a student would normally be working in an Information Technology setting prior to the commencement of the module. Prior to enrolling on this module, a project must be selected and arranged by, and agreed with, the client, university and student and supported by a tripartite agreement. The tripartite agreement will define specific learning and practice outcomes for the student and confirm required elements of support and commitment from all parties.

Criteria for Award

The criteria for the award of a Master of Science (Masters) are defined in the University Regulatory Framework: 180 credit points of which a minimum of 150 are at SCQF 11 and none less than SCQF level 10.

For the MSc Dip Information Technology, students are required to pass the three core IT modules, any two of the specialist pathway modules, and any one of the optional modules from those listed above. Students must also complete and pass a Masters Project.

For the MSc Dip Information Technology with a Specialist Pathway, students are required to pass the three core IT modules, the two core modules in that specialist pathway, and any one of the optional modules from those listed above. Students must also complete and pass a Masters Project within the area of the specialist pathway.

(Awards shall be made with Distinction to candidates who meet the criteria laid in University Regulations 3.25-3.26.)

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 an exit award of PgCert/ PgDip in Combined Studies.

Changes

Changes made to the programme since it was last published:

Version Number: 1.01