CALENDAR ENTRY

M.Sc. in INFORMATION SYSTEMS MANAGEMENT (Full-Time)

Programme Objectives
The M.Sc. in Information Systems Management serves distinct needs pertaining to the use, management and development of information systems within organisations. It is anticipated that students will bring to the programme a variety of skills from different backgrounds. The programme is designed as a specialist course which assists students in blending their existing talents with the technological skills and business knowledge needed to design, develop, use and manage information systems in modern knowledge-based organisations.

Entry Requirements
Applicants should normally hold a qualification from a university or other internationally recognised academic institution or authority, corresponding to Level 8 of the Irish National Framework of Qualifications (NFQ), to a minimum standard of Second Class Honours (or equivalent). It is expected that successful applicants will come from a variety of academic and professional backgrounds with prior exposure to information technology and/or business.

Applicants who do not hold a Level 8 qualification but who hold professional qualifications and/or have relevant practical experience are eligible to apply for the programme in accordance with the University's guidelines on the Recognition of Prior Learning (RPL). Such candidates will be required to provide evidence of their previous knowledge and may be required to attend for interview. Applicants may apply for exemption for some modules, in accordance with the University's RPL guidelines as determined by the School.

All applicants whose first language is not English or who have not been educated through the medium of the English language during their two most recent years of study must present one of the following qualifications in the English language: IELTS score of 6.0, TOEFL (paper based) score of 550, TOEFL (computer based) score of 213, or TOEFL (internet based) score of 80. On a case by case basis, the programme director may deem an applicant's level of English satisfactory and may thus waive this general requirement.

Programme Structure
The programme will be offered on a full-time basis over one academic year, or on a part-time basis over two academic years (see separate calendar entry for part-time mode). The programme will consist of lectures, practical classes, seminars and projects in the required subjects. To be eligible for the award of the M.Sc. in Information Systems Management, candidates must successfully complete modules to a total of 90 ECTS.

A candidate who has passed all of the modules other than the Project within a period of two years from commencement of the programme shall be eligible for the award of a Postgraduate Diploma in Information Systems Management.

Module Name	**Module Code**	**ECTS**	**First Sitting**
Web Design & Development	MSxxx	5	Semester I
Interactive Systems Design	MSxxx	5	Semester I
Business Data Communications	MSxxx	5	Semester I
Systems Development & Project Management	MSxxx	5	Semester I
Database Systems	MSxxx	5	Semester I
Business Applications Programming	MSxxx	5	Semester I
Information Systems Management	MSxxx	5	Semester II
Electronic Commerce Strategy	MSxxx	5	Semester II
Enterprise Systems	MSxxx	5	Semester II
Information Systems Security & Ethics	MSxxx	5	Semester II
Applied Systems Analysis	MSxxx	5	Semester II
Project	MSxxx	30	Autumn
Elective modules (choose one)			
Information Systems Innovation	MSxxx	5	Semester II
Decision Systems & Business Analytics	MSxxx	5	Semester II
Advanced Applications Programming	MSxxx	5	Semester II

Module Syllabii

Advanced Applications Programming
The objective of this module is to provide students with an understanding of advanced programming methods and techniques. Topics may include: Object-oriented programming languages e.g. Java, C++; programming paradigms; programming concepts such as methods, classes, objects, exception handling, inheritance, polymorphism, file handling; programming constructs; new and emerging issues in object-oriented programming.

Applied Systems Analysis
The objective of this module is to provide students with an in-depth understanding of foundation and advanced aspects of systems analysis in an applied context. The topics covered may include: systems theory; the practice of systems analysis; modelling approaches such as data, process and object-oriented modelling; systems development methodologies and techniques; the use of computer-aided systems engineering (CASE) tools; requirements determination and analsysis; requirements determination techniques (e.g., interviewing, observation and questionnaires) one-to-one and group interviewing techniques and skills; presentation techniques; compiling and evaluating requests for proposals; software and hardware contracts; project and systems documentation; feasilbility analysis; case studies in systems analysis and design, emerging issues in systems analysis.

Business Applications Programming
The objective of this module is to introduce students to the fundamentals of interactive applications programming. Topics may include: principles of structured programming; object-oriented programming; event-driven programming; business applications modelling (e.g. Unified Modelling Language); functions and subroutines; conditional logic; repetition statements; arrays; emerging topics and issues.

Business Data Communications
The objective of this module is to develop in students an understanding of the fundamentals of modern data communications, organisational interconnectivity, Internet technologies, and to relate them to a business environment. Topics may include: data representation; computer systems; operating systems; OSI model, client/server model; computer networks, transmission media and wireless communications; connecting devices; Internet connectivity, Internet (TCP/IP) model: protocols, services, and servers; network management; emerging topics in business data communications.

Database Systems
The objective of this module is to provide students with an understanding of business and technical issues in the development of database systems. Topics may include: database management systems; data modelling techniques e.g. normalisation, entity-relationship modelling, class diagrams; logical and physical database design; data quality and integrity; data definition; Structured Query Language (SQL); transaction management; distributed databases; emerging topics and issues.

Electronic Commerce Strategy
The objective of this module is to provide students with both a theoretical and applied understanding of information systems strategy, with particular focus on the issues, challenges and opportunities associated with electronic commerce. Topics to be covered may include electronic commerce strategy; business-to-business e-commerce; e-retailing; e-banking; e-commerce investments and funding; online communities for business; and emerging topics and issues.

Enterprise Systems
The objective of this module is to develop students understanding of Enterprise Systems in business. Topics may include: information systems in the functional areas including systems to support finance, marketing, human resources and manufacturing; business processes; Enterprise Resources Planning (ERP) systems; Customer Relationship Management (CRM) systems; Supply Chain Management (SCM) systems; Global Supply Chain Management and Design; Enterprise Application Integration (EAI); operations management; designing Enterprise Systems; frameworks for implementing Enterprise Systems; benefits and drawbacks of Enterprise Systems; Enterprise Systems software (e.g., SAP); critical prespectives on Enterprise Systems; case studies in Enterprise Systems; emerging directions and issues in Enterprise Systems.

Decision Systems & Business Analytics
The objective of this module is to provide students with an understanding of decision making, decision support systems and business analytics in the context of individual, managerial and business decision-based problems. Topics may include: decision making; decision strategies and approaches; information presentation and data visualisation for decision making; decision support systems (DSS); DSS concepts, methodologies, and technologies; modelling and analysis; group support systems; data warehousing and OLAP, data mining techniques and tools, e.g. neural networks, genetic algorithms; intelligent systems; emerging topics and technologies.

Information Systems Innovation
The objective of this module is to provide students with an understanding of Information Systems as (i) an enabler of organisational innovation and (ii) as an innovation in itself. Topics to be covered include: key concepts in the theory and process of Information System innovation; how to manage and apply Information Systems innovation; using explicit skills for defining IS innovation goals, generating ideas, empowering IS teams, and monitoring the results of IS innovation; knowledge management systems for managing innovation; working effectively as an IS professional and as a member of an IS Innovation team; presenting, communicating, and promoting IS innovation plans; applying what you have learned to managing IS innovation in an organisation. An important aspect of this postgraduate course is an in-depth study of the IS innovation plan of an IS department.

Information Systems Management
The objective of this module is to explore IS management and implementation issues. Topics to be covered include: IS as a socio-technical system; the impact of IS on business; how IS changes the competitive landscape; planning for the use of IS resources; value creation and IS creating value with IS in the modern landscape; appropriating value over the long term; justifying the IT investment; development and implementation; modern system and trends.

Information Systems Security & Ethics
The objective of this module is to help future managers to understand the broad range of technical and managerial issues related to information systems security; and ethical, legal and societal dimensions of information systems. Students will learn specific tools and techniques to support effective IS security management. Topics may include: nature and scope of IS security; security of technical systems in organizations; models for specification of IS security; cryptography and technical IS security; network infrastructure and security; planning and designing IS security; risk management for IS security; computer ethics; ethical usage policies; ethical frameworks and guidelines; legal aspects of information systems and the Web; data and consumer protection legislation; privacy issues in the digital age; contemporary issues in IS security and ethics.

Interactive Systems Design
This module provides an applied course concentrating on the effective design and development of Information Systems. Topics covered may include: principles of interactive design; socio-technical systems; usability engineering; understanding users; affective aspects of interface design; persuasive technologies; interaction paradigms and user interface design; design issues for new technologies; data gathering and analysis, including observation, ethnography, task analysis; user-centred design; lifecycle models; design and prototyping including techniques such as scenarios, use-cases, user profiles; evaluation of interactive systems including usability testing, field studies, inspections and predictive models; usability legislation and directives; accessibility; emerging topics and issues.

Project
A major applied project will be undertaken under the supervision and direction of staff. The project will normally be undertaken on a group basis. Projects must be based on a substantial topic in the field of business information systems relating to the use, management or development of an information system.

Systems Development & Project Management
The objective of this module is to develop in students an understanding of the fundamentals of project management in an Information Systems context. Topics may include: systems development process; modelling approaches; agile methods; software quality; software testing; implementation and operations; project planning; project time management; project scope management; project cost management; project HR management; project communications management; risk management; configuration management; change control; project audit and closure; managing agile projects; emerging issues.

Web Design & Development
The objective of this module is to provide students with applied skills in web systems development and multimedia object development. Topics may include: HTML; Web and Multimedia development tools (e.g. Dreamweaver, Expression); Web development concepts, methods and techniques; Web interaction design; web systems project management issues; multimedia object development; image, audio animation and video production and editing; object development tools (e.g. Fireworks, Photoshop, Flash); new and emerging topics in Web systems design and development.

CALENDAR ENTRY

M.Sc. in INFORMATION SYSTEMS MANAGEMENT (Part-Time)

Entry Requirements
The entry requirements for the part-time mode are the same as for the full-time mode.

Programme Structure
The programme will be offered on a part-time basis over two academic years. The programme will consist of lectures, practical classes, seminars and projects in the required subjects. To be eligible for the award of the M.Sc. in Information Systems Management, candidates must successfully complete modules to a total of 90 ECTS.

A candidate who has passed all of the modules of the first year of the programme within a period of two years from commencement of the programme, and who chooses not to continue with the programme, shall be eligible for the award of a Postgraduate Certificate in Information Systems Management.

A candidate who has passed all of the modules other than the Project within a period of four years from commencement of the programme shall be eligible for the award of a Postgraduate Diploma in Information Systems Management.

Year 1	**Module Code**	**ECTS**	**First Sitting**
Systems Development & Project Management	MSxxx	5	Semester I
Database Systems	MSxxx	5	Semester I
Business Applications Programming	MSxxx	5	Semester I
Information Systems Security & Ethics	MSxxx	5	Semester II
Applied Systems Analysis	MSxxx	5	Semester II
Elective modules (choose one)			
Information Systems Innovation	MSxxx	5	Semester II
Decision Systems & Business Analytics	MSxxx	5	Semester II
Advanced Applications Programming	MSxxx	5	Semester II

Year 2	**Module Code**	**ECTS**	**First Sitting**
Web Design & Development	MSxxx	5	Semester I
Interactive Systems Design	MSxxx	5	Semester I
Business Data Communications	MSxxx	5	Semester I
Information Systems Management	MSxxx	5	Semester II
Electronic Commerce Strategy	MSxxx	5	Semester II
Enterprise Systems	MSxxx	5	Semester II
Project	MSxxx	30	Autumn

Module Syllabii

Syllabus entries for the part-time mode are the same as for the full-time mode.

MARKS & STANDARDS

M.Sc. in INFORMATION SYSTEMS MANAGEMENT (Full-Time)

The M.Sc. in Information Systems Management is offered on a full-time basis over one year.

Module Name	**Module Code**	**ECTS**	**First Sitting**
Web Design & Development	MSxxx	5	Semester I
Interactive Systems Design	MSxxx	5	Semester I
Business Data Communications	MSxxx	5	Semester I
Systems Development & Project Management	MSxxx	5	Semester I
Database Systems	MSxxx	5	Semester I
Business Applications Programming	MSxxx	5	Semester I
Information Systems Management	MSxxx	5	Semester II
Electronic Commerce Strategy	MSxxx	5	Semester II
Enterprise Systems	MSxxx	5	Semester II
Information Systems Security & Ethics	MSxxx	5	Semester II
Applied Systems Analysis	MSxxx	5	Semester II
Project	MSxxx	30	Autumn
Elective modules (choose one)			
Information Systems Innovation	MSxxx	5	Semester II
Decision Systems & Business Analytics	MSxxx	5	Semester II
Advanced Applications Programming	MSxxx	5	Semester II

A maximum of 70% of the total marks in each module may be allotted for year's work, with the exception of the Project which is examined entirely by continuous assessment.

A minimum mark of 35% is required in the written examination in a module before marks for year's work/continuous assessment may be included in the determination of the overall mark for that module, unless the mark for year's work falls below the mark attained in the written examination. In the case of repeat candidates, the decision whether or not to include year's work in the computation of the overall mark will be informed by Departmental and/or School guidelines as appropriate.

The overall degree result is based on the average of examination results in the individual modules, weighted by ECTS credits. To pass overall, a pass or compensatable mark must be attained in all courses.

Where a student attains a grade in one or more modules that is below the pass mark but is at least 35%, the student may be permitted to compensate in those module(s), up to a maximum of 10 ECTS. No compensation is allowed for the Project.

Standards:

First Class Honours	about 70% overall
Second Class Honours Grade I	about 60% overall
Second Class Honours Grade II	about 50% overall
Pass	40% overall

The pass mark in each module is 40%.

The degree must normally be completed within a period of two years from initial registration. In exceptional circumstances, students may be permitted to continue beyond two years at the discretion of the Head of School. Students may transfer from the full-time mode to the part-time mode with the permission of the programme director.

A candidate who has passed all of the modules other than the Project within a period of two years from commencement of the programme shall be eligible for the award of a Postgraduate Diploma in Information Systems Management without distinction as to overall grade (i.e. Pass/Fail basis).

MARKS & STANDARDS

M.Sc. in INFORMATION SYSTEMS MANAGEMENT (Part-Time)

The M.Sc. in Information Systems Management is offered on a part-time basis over two years.

Year 1	**Module Code**	**ECTS**	**First Sitting**
Systems Development & Project Management	MSxxx	5	Semester I
Database Systems	MSxxx	5	Semester I
Business Applications Programming	MSxxx	5	Semester I
Information Systems Security & Ethics	MSxxx	5	Semester II
Applied Systems Analysis	MSxxx	5	Semester II
Elective modules (choose one)			
Information Systems Innovation	MSxxx	5	Semester II
Decision Systems & Business Analytics	MSxxx	5	Semester II
Advanced Applications Programming	MSxxx	5	Semester II

Year 2	**Module Code**	**ECTS**	**First Sitting**
Web Design & Development	MSxxx	5	Semester I
Interactive Systems Design	MSxxx	5	Semester I
Business Data Communications	MSxxx	5	Semester I
Information Systems Management	MSxxx	5	Semester II
Electronic Commerce Strategy	MSxxx	5	Semester II
Enterprise Systems	MSxxx	5	Semester II
Project	MSxxx	30	Autumn

A maximum of 70% of the total marks in each module may be allotted for year's work, with the exception of the Project which is examined entirely by continuous assessment.

A minimum mark of 35% is required in the written examination in a module before marks for year's work/continuous assessment may be included in the determination of the overall mark for that module, unless the mark for year's work falls below the mark attained in the written examination. In the case of repeat candidates, the decision whether or not to include year's work in the computation of the overall mark will be informed by Departmental and/or School guidelines as appropriate.

The overall degree result is based on the average of examination results in the individual modules of both first and second year, weighted by ECTS credits. To pass overall, a pass or compensatable mark must be attained in all courses.

Where a student attains a grade in one or more modules that is below the pass mark but is at least 35%, the student may be permitted to compensate in those module(s), up to a maximum of 10 ECTS across the entire programme. No compensation is allowed for the Project.

Standards:

First Class Honours	about 70% overall
Second Class Honours Grade I	about 60% overall
Second Class Honours Grade II	about 50% overall
Pass	40% overall

The pass mark in each module is 40%.

The degree must normally be completed within a period of four years from initial registration. In exceptional circumstances, students may be permitted to continue beyond four years at the discretion of the Head of School. Students may transfer from the part-time mode to the full-time mode with the permission of the programme director.

In order to be allowed to progress from the first year to the second year of the part-time M.Sc. in Information Systems Management, students must successfully pass modules from the first year to a minimum total of 20 ECTS.

A candidate who has passed all of the modules of the first year of the programme within a period of two years from commencement of the programme, and who chooses not to continue with the programme, shall be eligible for the award of a Postgraduate Certificate in Information Systems Management without distinction as to overall grade (i.e. Pass/Fail basis).

A candidate who has passed all of the modules other than the Project within a period of four years from commencement of the programme shall be eligible for the award of a Postgraduate Diploma in Information Systems Management without distinction as to overall grade (i.e. Pass/Fail basis).