PgCert/PgDip/MSc in Healthcare informatics

Programme Information

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Programme Aims & Objectives

Healthcare informatics (HI) lies at the intersection of informatics and the health and social care disciplines. It equips healthcare professionals with better information handling and interpretation skills.

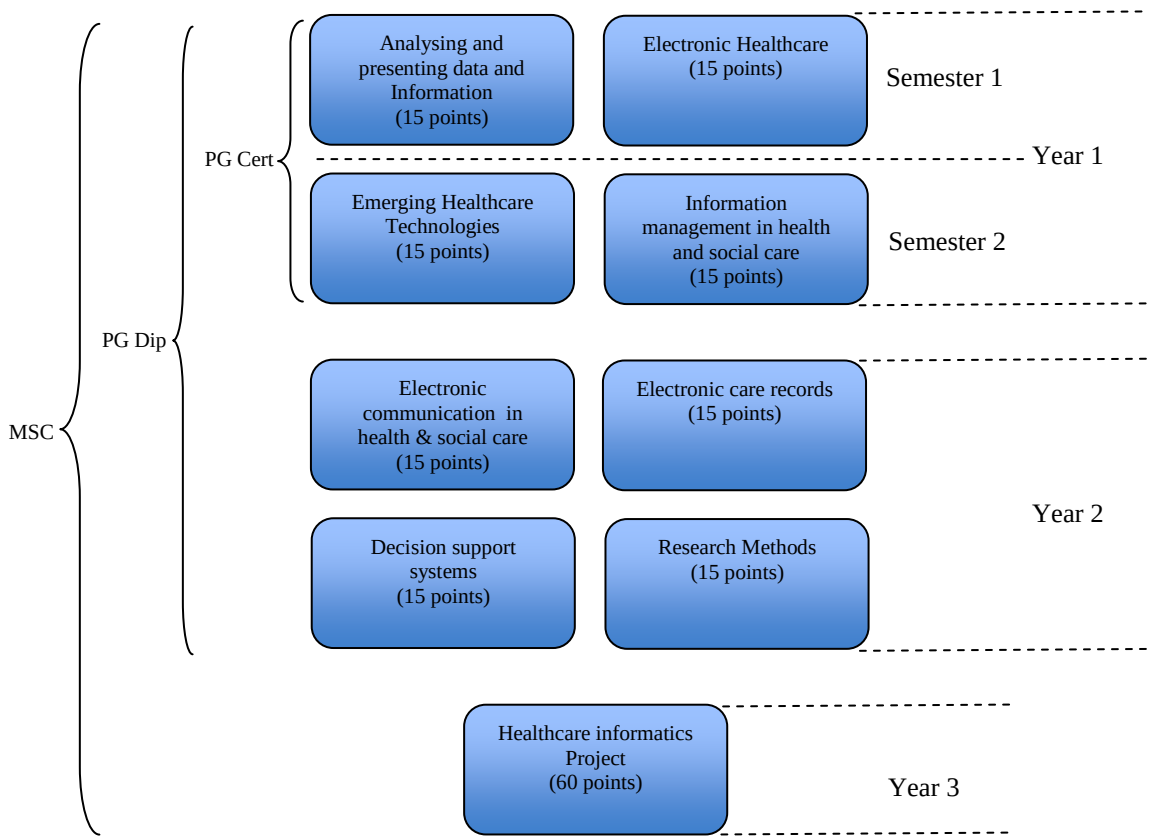
As information systems supporting health and the mode in which care is delivered undergo significant change throughout the UK and Ireland, there is an opportunity for more specialised healthcare informatics education, with a specific Computing Science underpinning.

This course aims to provide graduates working in the field of ICT in healthcare with up-to-date knowledge of computing, the competence to apply the most recent techniques in the area and the ability to critically evaluate current research and practice:

The main objectives of the course are to:

- to provide a good understanding of the principles underlying HI;
- to study the application of ICT in HI with emphasis on both practice and theory;
- to enable healthcare professionals to evaluate current and emerging health information systems;
- to familiarize with best practice and state-of-the-art approaches to software engineering as applied to health information systems;
- to develop in healthcare professionals the ability to communicate effectively a complex argument concerning HI concepts;
- to provide an appreciation of the ethical issues associated with the discipline of HI.

Programme Structure Diagram



Teaching and Learning Support Charter

This Charter outlines the University's commitments to students and their responsibilities in relation to teaching and learning. A copy is available at:

http://www.ulster.ac.uk/quality/qmau/t&lsupportcharter.pdf

Programme Specification

PgCert/PgDip/MSc in Healthcare informatics

PLEASE NOTE: This specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he or she takes full advantage of the learning opportunities provided. More detailed information on the specific learning outcomes, content and the teaching, learning and assessment methods of each module will be provided by individual module coordinators or, on request, from the course director (d.finlay@ulster.ac.uk)

1 **AWARD INSTITUTION/BODY**: University of Ulster
2 **TEACHING INSTITUTION**: University of Ulster
3 **LOCATION**: Jordanstown/Campus One
4 **ACCREDITED BY**: N/A
5 **FINAL AWARD**: Postgraduate Certificate/Postgraduate Diploma in Healthcare Informatics
6 **MODE OF ATTENDANCE**: Part-time
7 **SPECIALISMS**: Computing
8 **COURSE/UCAS CODE**: 5810/6323
9 **DATE WRITTEN/REVISED**: Effective from August 2011

EDUCATIONAL AIMS OF THE COURSE

To provide graduates working in the field of ICT in healthcare with up-to-date knowledge of computing, the competence to apply the most recent techniques in the area and the ability to critically evaluate current research and practice. For MSc candidates, the course will provide the opportunity to undertake an appropriate research study.

Specifically the course aims:

- to provide a good understanding of the principles underlying HI;
- to study the application of ICT in HI with emphasis on both practice and theory;
- to enable healthcare professionals to evaluate current and emerging health information systems and appropriate standards;
- to familiarize with best practice and state-of-the-art approaches to software engineering as applied to health information systems;
- to develop in healthcare professionals the ability to communicate effectively a complex argument concerning HI concepts;

- to provide an appreciation of the ethical and governance issues associated with the discipline of HI;
- to enable participants to evaluate current research in healthcare informatics
- to carry out a substantial piece of work involving scholarship and critical evaluation in an area of computing relating to healthcare informatics and resulting in a dissertation (MSc only).

10 **MAIN LEARNING OUTCOMES**

The following reference points were used to inform the development of the programme and its learning outcomes:

- the University's Vision and core strategic aims, teaching and learning strategy and policies;
- current research or other advanced scholarship carried out by academic staff;
- computing subject benchmark statement, QAA 2000;
- International Medical Informatics Association (IMIA) recommendations on Healthcare informatics education;
- occupational standards in healthcare informatics;
- national and University qualifications and credit frameworks.

The course provides opportunities for students to achieve and demonstrate the following learning.

11K **KNOWLEDGE AND UNDERSTANDING OF SUBJECT**

Successful students will be able to:

K1 demonstrate knowledge and understanding of HI concepts, principles and practice;
K2 display mastery of principles and techniques for the specialised areas of secure storage, manipulation and retrieval of health related data;
K3 display expertise with emerging technologies for health information systems;
K4 recognise the role of informatics to support the advance professional skill for Decision support systems.
K5 seek out and evaluate current research in healthcare informatics.

PgC/PgD: K1-K4; MSc: K1-K5

Teaching and Learning Methods: WebCT based lectures and tutorials, face to face seminars, practical sessions, self-study, project work for dissertation (MSc only).

Assessment Methods: Coursework assessment using formative and summative WebCT and traditional documentation. Dissertation examination including project oral (MSc only), project poster (MSc only).

11I **INTELLECTUAL QUALITIES**

Successful students will be able to:

I1 abstract and model complex real-world health problems;
I2 conceptualise design solutions to HI systems;
I3 critically evaluate and integrate the arguments of others in the area of professional practice in HI;
I4 reason critically in the specialized area of HI.
I5 synthesise the latest policy and research thinking in HI.

PgC/PgD: I1-I4; MSc: I1-I5

Learning and Teaching Methods: Lectures, student-led seminars, and self-directed learning employing occupational case studies.

Assessment Methods: Coursework related to case studies, using WebCT and face-to-face contact using formative and summative assessment. Dissertation examination including project oral (MSc only), project poster (MSc only)

11P **PROFESSIONAL/PRACTICAL SKILLS**

Graduates of the course will also be able to:

P1 specify a computer-based system using tools and techniques from best practice in software engineering;
P2 design, implement and evaluate software solutions to problems in their professional area of interest and in the process respond to changes in the problem area, and the software and hardware available;
P3 write reports, using complex arguments, for various audiences, users, management, other professionals and/or the academic community and communicate to peer group;
P4 undertake a piece of work in an area at the forefront of current professional practice in HI relevant to your own technical, professional or research area.

PgC/PgD/MSc: P1-P4

Learning and Teaching Methods: problem-based seminars, coursework (including literature review), and maintenance of a portfolio.

Assessment Methods: Coursework assessment using WebCT and portfolio assessment. Dissertation assessment including project oral (MSc only), project poster (MSc only).

11T **TRANSFERABLE SKILLS**

The course will also enhance the ability to:

T1 structure complex ideas and convey them both orally and in writing, to multidisciplinary audiences;
T2 apply project management techniques to a programme of work in HI;
T3 organise and analyse HI data;
T4 act ethically as a health computing professional;

PgC/PgD/MSc: T1-T4

Learning and Teaching Methods: Lectures, tutorials, self-directed study, seminars.

Assessment Methods: coursework assessment using WebCT and peer evaluation. Dissertation assessment including project oral (MSc only), project poster (MSc only).

11 PROGRAMME LEARNING OUTCOME MAP

Please Note: The matrix displays only the measurable programme outcomes and where these are developed and assessed within the modules offered in the programme.

MODULE		OUTCOMES																	
TITLES	CODE	K1	K2	K3	K4	K5	I1	I2	I3	I4	I5	P1	P2	P3	P4	T1	T2	T3	T4
Electronic healthcare	COM723	√	√	√			√	√		√				√	√	√			√
Information management in health and social care	COM724	√	√		√		√		√	√				√		√	√	√	
Emerging healthcare technologies	COM725	√		√				√	√			√	√	√	√	√	√		
Analysing and presenting data and Information	COM726	√	√		√		√			√				√	√	√	√	√	
Decision support systems	COM727	√			√		√		√	√				√	√	√	√	√	√
Electronic communications in health & social care	COM728		√	√				√				√	√	√	√	√	√		
Electronic care records	COM729		√	√			√	√	√			√	√	√		√		√	√
Research Methods	COM916					√			√	√	√					√	√	√	√
Research Study	COM904			√		√			√	√	√			√	√	√	√	√	√

12 STRUCTURE AND REQUIREMENTS FOR THE AWARD

This course is studied part-time. Delivery is by blended learning, using WebCT, with face to face sessions (up to 12 hours per module) as appropriate. Four 15 point modules are required for the certificate. A further four 15 point modules are required for the diploma. The MSc is obtained by completing a period of research study which represents a further 60 credit point. The structure has been devised to provide appropriate learning at M-level and to facilitate the learning outcomes of a professional certificate concurrent with academic achievement.
For a student wishing to complete the MSc in the shortest time, it should normally be possible to complete the award over three years (six semesters). For the PgCert and PgDip the durations are one year (two semesters) and two years (four semesters) respectively.
Performance will be assessed at Examination Boards at the end of Semester 1 and Semester 2 each year. A progression board will be held at the end of Semester 1 and Semester 2 to record student performance in the modules undertaken. Students who do not reach the pass mark in a module will be expected to repeat the assessment in the supplementary examination period (August). The language of instruction is English.

Module Title	**Credit Level**	**Credit Points**	**Module Status [compulsory/ optional]**	**Awards**
Electronic Healthcare	M	15	C	
Information management in health and social care	M	15	C	
Emerging healthcare technologies	M	15	C	
Analysing and presenting data and Information	M	15	C	PgCert (potentially) upon completion of the first 4 modules
Decision support systems	M	15	C	
Electronic communications in health & social care	M	15	C	
Electronic care records	M	15	C	
Research Methods	M	15	C	PgD (potentially) upon completion of all modules
Research Study	M	60	C	MSc

13 SUPPORT FOR STUDENTS AND THEIR LEARNING

Students and their learning are supported in a number of ways:

- Induction to the course;
- Course handbook and a Module Handout for each module;
- Extensive library and other learning resources, including on-line journals;
- Computer laboratories with a wide range of software;
- Intranet with a wide range of learning support material;
- Student e-mail accounts and full access to the Internet;
- Personal Development Planning system;
- Course director acts as Adviser of Studies.

14 CRITERIA FOR ADMISSION

Applicants should normally be working in the area of ICT in the health sector and must have gained an Honours or non-Honours degree from a University of the United Kingdom or the Republic of Ireland, from the Council for National Academic Awards, the National Council for Educational Awards, the Higher Education and Training Awards Council or from an institution of another country which is recognised as being of an equivalent standard; or demonstrate their ability to undertake the course through the accreditation of prior experiential learning.

15 EVALUATING AND IMPROVING THE QUALITY AND STANDARD OF TEACHING AND LEARNING

Quality and standards are evaluated and improved through consideration of:

- QAA Computing benchmark and benchmarks for healthcare informatics produce by authoritative bodies such as International Medical Informatics Association;
- Views of employers;
- Views of professional validation panel which will ensure standards are appropriate to UK courses;
- Views of external examiners.

Mechanisms for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards -

- Module reviews (student questionnaires and teaching team report);
- Annual course review prepared by the course director and reviewed by peers at Faculty and University level;
- Peer teaching observations and feedback;
- Annual staff appraisals.

Committees with responsibility for monitoring and evaluating quality

- Staff Student Consultative Committee;
- Course committee;
- Board of Examiners;
- School Board (includes student members);
- Faculty Teaching and Learning Committee (includes student members);
- University Teaching and Learning Committee.

Mechanisms for gaining student feedback on the quality of their learning experience

- Staff-Student Consultative Committee;
- Student representatives on School and Faculty boards;
- Module evaluation questionnaires / module forum / module freeform responses ;
- University questionnaires on course completion;
- Feed back to the Course Director in his capacity as personal tutor.

Staff development includes:
- Updating in the subject through research, scholarship and academic enterprise;
- Consultancy.

16 REGULATION OF STANDARDS

Assessment rules
- Pass mark for course, module and individual assessments = 50%.
- Full details of module assessment are set out in each module booklet.
- An average mark of 70% in the taught modules (subject to further distribution requirements given in the Course Regulations) qualifies for the award with Distinction.

External Examiners

There is 1 external examiner for the course. External examiners are academic subject or professional experts appointed from outside the University. Their key functions are to contribute to the assurance of the standards of the award and the fair treatment of students. They are involved in the moderation and approval of assessments and the moderation of the marking undertaken by internal examiners.

17 INDICATORS OF QUALITY RELATING TO TEACHING AND LEARNING

- The outcome of the QAA Institutional Audit (2010) which stated that confidence can reasonably be placed in the soundness of the University's management of academic standards and the quality of the learning opportunities available to students.
- In the RAE 2008, Computer Science at Ulster was ranked 15th out of a list of 81 UK universities in terms of research power. The submission of 41 staff was the 8th largest in the UK, with 55% of the submission judged to be world-leading or internationally excellent, and 90% internationally recognized.
- Courses have been accreditated by The British Computer Society towards Chartered IT Professional and Chartered Engineer status.
- The Faculty hosts the national subject centre for computing - the Higher Education Academy Subject Centre for Information and Computer Sciences.
- The teaching staff includes Fellows of the Higher Education Academy.
- A number of the current Faculty staff have received the University’s Distinguished Teaching Award.
- External funding for learning and teaching initiatives.
- New staff and some existing staff have attained the Postgraduate Certificate In Higher Education Practice.

Module Overview

PgCert/PgDip/MSc Healthcare Informatics offers graduates of computing and related disciplines and industry professionals with equivalent skills the opportunity to develop advanced skills in the area of health and social care informatics. The following modules have broad curricula and are designed to enable graduates to understand the role of informatics in the delivery of health and social care from a historical perspective, an individual perspective and from the perspective of the organisation; to study the principles underpinning information management and information systems; and to update knowledge of the latest ICT technologies used in health and social care organisations. In addition each module has a specific focus on advancing the knowledge and skills in computing applied to HI.

COM723 Electronic Healthcare advances the eHealth paradigm, which puts citizens at the centre of their care, encouraging a partnership approach to health and wellbeing. It reinforces the evidence based medicine approach and hence arms the student with skills for obtaining evidence from authoritative sources, and appraising this evidence. It will also study local and national UK exemplars of eHealth.

COM724 Information management in health and social care explores how data and information can be utilised as knowledge. Usability of information is also an issue and the latest techniques will be studies. Project management skills will be advanced, enabling the student to become a more effective practitioner of HI.

COM725J Emerging healthcare technologies builds upon competencies in ICT and web base systems by investigating the roles of assistive technology in healthcare, as evidenced by Smart Home environments. Case studies and practical scenarios from current research projects will be provided for critical analysis.

This diet of modules will update the computing knowledge and practical ICT skill levels of the students. The following modules permit further computing specialisation in analysing data to extract information, and supporting decision and therapy planning. Understanding communications is important in healthcare, where sources of information necessary for diagnosis and planning may be geographically distributed. Likewise the implementation of the electronic care record and knowledge of the clinical terminologies is significant, as the electronic care record becomes ubiquitous in clinical practice.

COM726 Analysing and presenting data and Information
This module provides a statistical approach to data analysis. Appropriate ICT tools will be used for analysis, display and interpretation. Problems will be set to test the understanding of the student.
COM727 Decision support systems: Data and knowledge bases permit decision support both for diagnosis, therapy planning and clinical audit. This module adopts a theoretical approach and supplements this with practical examples from decision support packages.

COM728 Electronic communications in health & social care: Advances in electronic communications facilitate ambient intelligence, remote monitoring, eHealth and Telemedicine applications. This module provides a state of the art approach to

communications and networking, which will enable the student to investigate and model complex communication systems.

COM729 Electronic care records: Electronic care records are at the heart of ICT modernisation in Health. Records facilitate efficient administration but can also be used for advanced care. In order to capture data, information and knowledge coding systems are used. This module applies both a theoretical and practical treatment.

COM916 Research methods: The research methods module underpins the foundations of good scientific practice. It introduces students to fundamental problems, principles, approaches and tools for designing and managing research. Additionally, it provides students with fundamental skills required for evaluating the outcomes of empirical research.

COM904 Research Study: The research study module extend the students' knowledge, equips them to conduct a valid investigation into an Healthcare informatics-related problem, based on analysis of a problem domain, assessment of current knowledge and use of relevant information technology to further current knowledge or clinical practice and to present the results in the form of a publishable paper in the area of Healthcare informatics.

Relationship with Professional Bodies

The course encompasses learning outcomes associated with Profession Certificate in Healthcare informatics. This has been assessed for many years by a Professional Awards IM&T (Health) committee in England. A new committee has been established for Northern Ireland. The course received approval on 30th Nov 07 by the Northern Ireland Professional Awards IM&T (Health) committee (subject to minor conditions). The course will seek to promote professionalism in students by encouraging membership of the United Kingdom Council for Healthcare informatics Professionals (UKCHIP).

Teaching, Learning and Assessment

Delivery is by blended learning, using WebCT, with face-to-face sessions (up to 12 hours per module) as appropriate. It is anticipated that face-to-face session will occur regularly throughout the module, out of normal work hours. Block mode may be used as an alternative for face-to-face sessions. Schedule contact will be as flexible as possible, appropriate to the needs of the students.

The WebCT system can be accessed here:
http://learning.ulster.ac.uk/webct/logonDisplay.dowebct
On this page you will also find links to tutorials and help information.

Specific requirements of disabled students will be addressed by consultation between student and a member of staff, normally the Course Director, at induction. Best practice will be adhered to, e.g. use of screen readers, large font notes etc.

All modules are assessed based on coursework. The coursework structure is dependant on the particular module and may involve group work. Although there are no formal examinations students may be required to sit class tests for some modules. Modules will have an internal examiner, who contributes to the assessment and moderation process.

An external examiner will be appointed in accordance with the University's procedures. There is one external examiner for the course. External examiners are academic subject or professional experts appointed from outside the University. Their key functions are to contribute to the assurance of the standards of the award and the fair treatment of students. They are involved in the moderation and approval of assessments and the moderation of the marking undertaken by internal examiners.

Timetable & Academic Calendar

DATES OF SEMESTERS 2011/2012

Introductory period Monday	19 Sept 2011-23 Sept 2011
Autumn Semester (1)	26 Sept 2011-27 Jan 2012 (15 weeks) 12+(3)+3
Christmas vacation	19 Dec 2011-6 Jan 2012
Examinations begin	9 Jan 2012
Spring Semester (2)	30 Jan 2012-1 June 2012 (16 weeks) 9+(2)+3+1+3
Easter vacation	2 April 2012-13 April 2012
Revision week	8 May 2012-11 May 2012
Examinations begin	14 May 2012

Programme management

Professor Richard Millar	Dean, Faculty of Computing and Engineering
Dr Paul Hanna	Head of School, Computing & Mathematics
Dr Dewar Finlay	Lecturer (Course Director, Advisor of Studies)
Mr William Blackburn	Lecturer
Dr Gaye Lightbody	Lecturer
Dr Jun Liu	Lecturer
Dr Paul McCullagh	Reader
Dr Mark McCartney	Lecturer
Professor Chris Nugent	Professor
Dr Piyush Ojha	Lecturer
Dr Haiying Wang	Lecturer

Overall responsibility for the management of the programme of study lies with the *Course Committee* and the *Course Director* has responsibility for the day-to-day running of the course.

The *Course Committee* is a committee formed by those members of academic staff who have teaching responsibilities on the Course as well as the nominated studies advisors. This committee oversees all changes to the Course and has overall responsibility for its design and effective delivery. The Course Director is the Chairman of the Course Committee.

The *Staff-Student Consultative Committee* assists in informing the Course Committee. Class representatives are elected for each year of the course and these representatives are expected to bring forward any issues raised by the student group they represent.

The Course Committee reports, through School Board, to the Faculty's *Teaching and Learning Committee*, which in turn reports to *Faculty Board*. This is the normal route for all of the Faculty's Course Committee meeting minutes.

An *External Examiner* will be appointed by the University Council on the recommendation of Senate, to oversee and monitor standards etc. on the Course, after consideration of nominations from the Faculty Teaching and Learning Committee.

Student progression is the responsibility of the *Board of Examiners*, whose membership includes the Course Committee and the External Examiner.

Regulations

UNIVERSITY OF ULSTER

1 TITLE **CODE**

PgCert in Healthcare Informatics 5810
PgDip/MSc in Healthcare Informatics
6323

2 MODE OF ATTENDANCE

Part-time

3 DURATION

Postgraduate Certificate – two semesters (one academic year)
Postgraduate Diploma – four semesters (two academic years)
MSc – six semesters (three academic years).

4 LOCATION

CAMPUS ONE & Jordanstown, BLENDED LEARNING
Face-to-face delivery will be flexible, either evening sessions or block mode.

5 FACULTY

Computing and Engineering

6 ADMISSION REQUIREMENTS

Applicants must:

(a) have gained

(i) a second class honours degree or better from a university of the United Kingdom or the Republic of Ireland, from the Council for National Academic Awards, the National Council for Educational Awards, the Higher Education and Training Awards Council, or from an institution of another country which has been recognised as being of an equivalent standard; or

(ii) an equivalent standard (normally 50%) in a Graduate Diploma, Graduate Certificate, Postgraduate Certificate or Postgraduate Diploma or an approved alternative qualification;

and

(b) provide evidence of competence in written and spoken English (GCSE grade C or equivalent);

or, as an alternative to (a) (i) or (a) (ii) and/or (b):

(c) In exceptional circumstances, where an individual has substantial and significant experiential learning, a portfolio of written evidence demonstrating the meeting of graduate qualities (including subject-specific outcomes, as determined by the Course Committee) may be considered as an alternative entrance route. Evidence used to demonstrate graduate qualities may not be used for exemption against modules within the programme.

7 EXEMPTIONS

7.1 Studies pursued and examinations passed in respect of other qualifications awarded by the University or by another university or other educational institution, or evidence from the accreditation of prior experiential learning, may be accepted as exempting candidates from part of the programme provided that

(a) they shall register as students of the University for modules amounting to at least the final third of the credit value of the award at the highest level.

8 ATTENDANCE REQUIREMENTS

8.1 Students are expected to attend all classes associated with the programme and be punctual and regular in attendance.

8.2 A student who has not been in attendance for more than three days through illness or other cause must notify immediately the Course Director. The student shall state the reasons for the absence and whether it is likely to be prolonged. Where the absence is for a period of more than five working days, and is caused by illness which may affect their studies, the student shall provide appropriate medical certification in accordance with the General Regulations for Students.

8.3 Students who are absent without good cause for a substantial proportion of classes may be required to discontinue studies, in accordance with the General Regulations for Students.

9 RULES GOVERNING STUDENT CHOICE

9.1 Modules are offered as indicated in the table at section 17. Revisions may be made in accordance with the University's quality assurance procedures. Module availability may vary.

10 EXAMINATION AND ASSESSMENT

10.1 The performance of candidates shall be assessed by the Board of Examiners in accordance with the Regulations Governing Examinations in Programmes of Study.

10.2 Candidates shall be assessed in the modules for which they have enrolled in each year of study. At the discretion of the Board of Examiners candidates may be required to attend a viva voce examination.

10.3 Within each module candidates shall be assessed by *coursework* in accordance with the attached table.

10.4 The pass mark for the module shall be 50%.

11 SUBMISSION OF COURSEWORK

11.1 Coursework shall be submitted by the dates specified by the Course Committee.

11.2 Students may seek prior consent from the Course Committee to submit coursework after the official deadline; such requests must be accompanied by a satisfactory explanation, accompanied in the case of illness by a medical certificate. This application shall be made to the Course Director.

11.3 Coursework submitted without consent after the deadline shall not normally be accepted.

11.4 Candidates completing a dissertation shall submit a project outline for approval in accordance with the Guidelines for the Preparation of Dissertations for Master's Degree Programmes. Two copies of the dissertation shall be submitted for assessment. The dissertation shall be presented in accordance with the Guidelines for the Presentation of Dissertations for Master's Degree programmes.

11.5 Dissertations which achieve a final mark of 70% or above shall be made available for public access through the University Library. Access to such dissertations shall not normally be restricted. Access may be restricted, in exceptional circumstances, for a period of up to two years in the first instance, and for a total period of not more than five years. Such restriction shall be approved in accordance with the procedures described in the Guidelines for the Presentation of Dissertations for Master's Degree programmes. Access to the abstract of the work shall not be restricted. A statement regarding access shall be included in the introduction to dissertations deposited in the Library in accordance with the Guidelines.

12 PROGRESS

12.1 Progress from semester 1 to semester 2 is automatic.

12.2 Subject to 13, candidates are required to pass all modules in each year of study in order to proceed to the next.

13 CONSEQUENCES OF FAILURE

13.1 Candidates who fail to satisfy the Board of Examiners in assessment may be permitted at the discretion of the Board to re-present themselves as specified in 13.2 for one or more supplementary examination and repeat such coursework or other assessment requirements as shall be prescribed by the Board. Such candidates may be exempted at the discretion of the Board from the normal attendance requirements. Where candidates are required to repeat coursework or to take a supplementary examination the original mark in the failed coursework component or examination shall be replaced by a mark of 50% or the repeat mark whichever is the lower for the purpose of calculating the module result.

13.2 In each year, the consequences of failure shall normally be as follows:

Failure in module(s) with an overall value up to and including 60 credit points	Repeat *once only* of specified examination(s) and/or coursework in the failed module(s) (examinations August).
Failure in module(s) with an overall value of more than 60 and up to and including 90 credit points	Repeat *once only* specified examination(s) and/or coursework in the failed module(s) in the next academic year (examinations January/May) with or without attendance.
Failure in module(s) with an overall value of more than 90 credit points	Withdraw from the programme.

14 CLASSIFICATION OF FINAL RESULT

14.1 The results of candidates who have successfully completed a programme of study leading to a Master's degree shall be graded by order of merit as Pass with Distinction and Pass.

14.2 The assessment results for the final level of the programme (Level 7) shall determine the overall grading. The weighting of each module's contribution to the final result shall be determined by the module's credit value. (See table at section 17.)

14.3 The following shall be the minimum overall percentages used to determine the final gradings of candidates:

Pass with Distinction 70%

Pass 50%

14.4 A mark of 70% or above must also be achieved in the dissertation/project in order for the degree to be awarded with Distinction.

14.5 Candidates admitted with advanced standing shall be assessed in accordance with these programme regulations using the evidence from the accredited prior learning.

15 ILLNESS AND OTHER EXTENUATING CIRCUMSTANCES

15.1 The Board of Examiners may in the case of candidates who are prevented by illness or other sufficient cause from taking or completing the whole or part of the assessment or whose results are substantially affected by illness or other sufficient cause:

(a) permit the candidate to complete, take, or repeat the examination and/or coursework or dissertation at an approved subsequent date **or**

(b) deem the candidate to have passed and recommend the award of an Aegrotat Master's Degree

15.2 Before an Aegrotat award is recommended a candidate must have indicated that he or she is willing to accept the award.

16 REVISIONS TO REGULATIONS

These regulations may be revised during the student's period of registration in accordance with the procedures approved by Senate.

(c) In exceptional circumstances, where an individual has substantial and significant experiential learning, a portfolio of written evidence demonstrating the meeting of graduate qualities (including subject-specific outcomes, as determined by the Course Committee) may be considered as an alternative entrance route. Evidence used to demonstrate graduate qualities may not be used for exemption against modules within the programme.

17 TABLE

Year	Semester	Level	Module Title	Code	Credit Value	Status Compulsory(c) Optional (o)	Assessment Methods % Coursework	Contribution to the overall mark of the Final Award	Contribution to the overall mark of the Final Award	Contribution to the overall mark of the Final Award
1	1	7	Electronic healthcare	COM723	15	C	100	25.0% PgC	12.5% PgD	8.33% MSc
1	2	7	Information management in health and social care	COM724	15	C	100	25.0% PgC	12.5% PgD	8.33% MSc
1	2	7	Emerging healthcare technologies	COM725	15	C	100	25.0% PgC	12.5% PgD	8.33% MSc
1	1	7	Analysing and presenting data and Information	COM726	15	C	100	25.0% PgC	12.5% PgD	8.33% MSc
2	2	7	Decision support systems	COM727	15	C	100		12.5% PgD	8.33% MSc
2	1	7	Electronic communication in health & social care	COM728	15	C	100		12.5% PgD	8.33% MSc
2	1	7	Electronic care records	COM729	15	C	100		12.5% PgD	8.33% MSc
2	2	7	Research Methods	COM916	15	C	100		12.5% PgD	8.33% MSc
3	1 & 2	7	Research Study	COM904	60	C (MSc)	100			33.33% MSc