PROGRAMME SPECIFICATION – POSTGRADUATE PROGRAMMES

KEY FACTS

Programme name	MSc Health Informatics
Award	MSc
School	Mathematics, Computer Science and Engineering
Department or equivalent	Computer Science
Programme code	PSHINF
Type of study	Full Time Part Time
Total UK credits	180
Total ECTS	90

PROGRAMME SUMMARY

Aims

The aim of this MSc programme is to provide knowledge and skills relating to the delivery of healthcare in a technologically advanced and information led society. The course is designed to enable graduates to solve information and health management problems arising from the adoption of information and communication technologies and changes in healthcare provision. A general aim is to complement the students' practical experience in a way that will lead to a potentially greater contribution in applying information and communication technologies in healthcare processes.

The objectives are:
A systematic understanding of the fundamental principles of the areas of health Informatics and cognate subjects contained within the chosen modules.
The ability to utilise the specialist methods and techniques from a chosen set of modules in application to relevant medical and related problems.
The ability to evaluate knowledge and information to make informed judgements, through project and related activity, a full appreciation of specific areas of the clinical and healthcare domain and its special features and requirements as they impact upon the design, development and operation of health informatics.

There are three types of awards that you can get (please see the section "WHAT AWARD CAN I GET?").

Postgraduate Certificate in Health Informatics
For all of you completing the Postgraduate Certificate you will have had the opportunity to examine the theories related to the analysis, design, and evaluation of health informatics systems, and demonstrated sufficient ability in at least four taught modules (60 credits), which can be any combination of modules among the available ones.

Postgraduate Diploma in Health Informatics
For all of you completing the Postgraduate Diploma, in addition to the above you will have explored the theory and practice, and demonstrated ability in all the different

aspects of Health Informatics, considering such aspects from different perspectives and demonstrating critical insight on the applicable methods and techniques used in Health Informatics. You will have demonstrated ability in analysing, designing, developing and evaluating heath informatics systems, which equates to passing all eight taught modules, worth 120 credits.

MSc in Health Informatics
For all of you completing the MSc in Health Informatics, in addition to the above you will have demonstrated original application of knowledge in the area, either through the analysis, design, and evaluation of a health informatics artefact, the design and implementation of a health informatics solution that meets a client's needs, or the critical evaluation and extension of the knowledge in the area through a research-led project, which can involve the development of software artefacts as well, e.g. to support data analysis and visualization. This will be achieved through your individual project, a substantial module worth 60 credits that you can commence once you have successfully passed all your taught modules.

WHAT WILL I BE EXPECTED TO ACHIEVE?

On successful completion of this programme, you will be expected to be able to:

Knowledge and understanding:
- Demonstrate systematic understanding of principles and techniques in relevant aspects of scientific and healthcare disciplines which interact with the application of information science and technology.

- Demonstrate detailed understanding of the influences of information and communication technology standards in the context of clinical and heath systems

- Show detailed understanding of the scientific basis of clinical and technical problems encountered in the health-related and healthcare fields.

Skills:
- Rigorously investigate advanced problems and undertake research in health informatics.

- Use computers and models to develop knowledge-based systems

- Develop a comprehensive understanding and practical knowledge of clinical coding, terminology and disease classification, and how there concepts may realised in computerised health systems.

- Transform complex health and clinically related data and concepts towards a given purpose and design a novel innovative solution.

- Use information technology to prepare, process, store and present data, information and knowledge

- Critically evaluate solutions and responses with minimum guidance, using appropriate techniques.

- Critically analyse and evaluate new information from a range of sources using a wide range of appropriate techniques.

- Test concepts and hypotheses for innovative solutions.

Values and attitudes:
- Demonstrate adoption of the necessary systemic and professional values appropriate to conduct in health informatics research, business and policy-making.

- Promote the value of equality and diversity when working in the group settings

This programme has been developed in accordance with the QAA Subject Benchmark Statement for Computing (2011).

HOW WILL I LEARN?

You will learn via a mix of learning and teaching strategies.

In taught modules you will learn through lectures and tutorials. Fundamental concepts are introduced in lectures. You will then apply the concepts in small, interactive exercises and in practical work in supervised tutorials.

In addition, you will engage in self-directed study to deepen your understanding, during which you will read recommended materials, engage in reflective exercises, participate in seminars and tutorials, and prepare for formative and summative assessments.

Modes of study are offered on both a full- and part-time basis, and the student's traditional face-to-face experience is supported via online tools, which will also enable feedback and engagement via discussion forums and the dissemination of additional material made available to you.

Some of the assessments and exercises will involve group work to enable you to learn how to work effectively in teams and learn other transferable skills. Assessment is by individual coursework assignments or exams.

The dissertation is a substantial component of the degree offering students the opportunity to demonstrate comprehensive understanding of a particular specialism and a systematic and professional approach to research. It is a substantive task that requires students to investigate a relevant chosen area under the supervision of academic staff.

WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

Typically, the assessment methods include a combination of written examination and coursework. The assessment of certain modules is based on coursework only, as

detailed in each module's specification. The written examinations will contain theoretical questions, including small essays and mathematical aspects, and practical questions requiring the analysis and exemplifying of data science methods and techniques.

<u>Assessment and Assessment Criteria</u>

Assessment is within each module, including the dissertation. Assessment methods vary according to the nature of the material. A combination of individual written assignments, exercises and unseen written examination is the norm, but some modules may use other methods, including individual practical exercises and group work projects. Many assessments have an element of choice, allowing students to focus on aspects of interest to them.

Assessment Criteria are descriptions, based on the intended learning outcomes, of the skills, knowledge or attitudes that you need to demonstrate in order to complete an assessment successfully, providing a mechanism by which the quality of an assessment can be measured. Grade-Related Criteria are descriptions of the level of skills, knowledge or attributes that you need to demonstrate in order achieve a certain grade or mark in an assessment, providing a mechanism by which the quality of an assessment can be measured and placed within the overall set of marks. Assessment Criteria and Grade-Related Criteria will be made available to you to support you in completing assessments. These may be provided in programme handbooks, module specifications, on the virtual learning environment or attached to a specific assessment task.

<u>Feedback on assessment</u>

Feedback will be provided in line with our Assessment and Feedback Policy. In particular, you will normally be provided with feedback within three weeks of the submission deadline or assessment date. This would normally include a provisional grade or mark. For end of module examinations or an equivalent significant task (e.g. an end of module project), feedback will normally be provided within four weeks. The timescale for feedback on final year projects or dissertations may be longer. The full policy can be found at:
https://www.city.ac.uk/__data/assets/pdf_file/0008/68921/assessment_and_feedback_policy.pdf

<u>Assessment Regulations</u>

In order to pass your Programme, you should complete successfully or be exempted from the relevant modules and assessments and will therefore acquire the required number of credits.

The pass mark for each module is 50%.

If you fail an assessment component or a module, the following will apply:

1. Compensation: where you fail up to a total of 20 credits at first or resit attempt (15 for a Postgraduate Certificate), you may be allowed compensation if:
   - Compensation is permitted for the module involved (see the What will I Study section of the programme specification), and

- It can be demonstrated that you have satisfied all the Learning Outcomes of the modules in the Programme, and
- A minimum overall mark of no more than 10% below the module pass mark has been achieved in the module to be compensated, and
- An aggregate mark of 50% has been achieved overall.

Where you are eligible for compensation at the first attempt, this will be applied in the first instance rather than offering a resit opportunity.

If you receive a compensated pass in a module you will be awarded the credit for that module. The original component marks will be retained in the record of marks and your original module mark will be used for the purpose of your Award calculation.

2. Resit: Where you are not eligible for compensation at the first attempt, you will be offered one resit attempt.

If you are successful in the resit, you will be awarded the credit for that module. The mark for each assessment component that is subject to a resit will be capped at the pass for the module. This capped mark will be used in the calculation of the final module mark together with the original marks for the components that you passed at first attempt.

If you do not meet the pass requirements for a module and do not complete your resit by the date specified you will not progress and the Assessment Board will require that you be withdrawn from the Programme.

If you fail to meet the requirements for the Programme, the Assessment Board will consider whether you are eligible for an Exit Award, as per the table below.

If you would like to know more about the way in which assessment works at City, please see the full version of the Assessment Regulations at:
http://www.city.ac.uk/__data/assets/word_doc/0003/69249/s19.doc

---

WHAT AWARD CAN I GET?

Master's Degree:

	HE Level	Credits	Weighting (%)		Class	% required
Dissertation	7	60	33		With Distinction	70
Taught	7	120	66		With Merit	60
					Without Classification	50

Postgraduate Diploma:

	HE Level	Credits	Weighting (%)		Class	% required
Taught	7	120	100		With Distinction	70

				Class	% required
				With Merit	60
				Without Classification	50

Postgraduate Certificate:

	HE Level	Credits	Weighting (%)	Class	% required
Taught	7	60	100	With Distinction	70
				With Merit	60
				Without Classification	50

WHAT WILL I STUDY?

Six core and a choice of two (from five) option taught modules followed by the dissertation component. Optionally, the dissertation can be carried out within a period of internship.

Taught component

The taught component is taken in one of two standard length patterns: full-time (one year) and part-time (two years).

- User-Centred System Design is delivered only in the evenings (but full time students can attend the evening delivery)

Module Title	SITS Code	Module Credits	Core/ Elective	Can be Compen- sated?	Level
Clinical Records	INM337	15	C	N	7
Telemedicine	INM339	15	C	Y	7
Databases	INM343	15	E	Y	7
Programming in Java	INM350	15	E	Y	7
User-Centred System Design	INM355	15	E	Y	7
Information for Decisions in Healthcare	INM357	15	C	Y	7
Knowledge Management in Healthcare	INM358	15	C	Y	7
Data Analysis with Healthcare Application	INM362	15	C	Y	7
Project Management	INM372	15	E	Y	7
Research Methods and Professional Issues	INM373	15	C	Y*	7
Information Architecture	INM401	15	E	Y	7

* Compensation will only be applied at resit.

Dissertation component

A dissertation project of 60 credits is required for the Masters award.

Module Title	SITS Code	Module Credits	Core/ Elective	Can be Compen- sated?	Level
Individual Project	INM363	60	C	N	7

You are normally required to pass all taught modules before progressing to the dissertation. INM373 Research Methods and Professional Issues must be passed with a mark of at least 50% without compensation to proceed with INM363 Individual Project.

TO WHAT KIND OF CAREER MIGHT I GO ON?

If you would like more information on the Careers support available at City, please go to: http://www.city.ac.uk/careers/for-students-and-recent-graduates.

WHAT PLACEMENT OPPORTUNITIES ARE AVAILABLE?

Students who successfully complete the taught part of their course without re-sits have the option of doing an internship on which they can base their dissertation. The internship period is from July to December. Students produce an internship-based proposal along with a back-up non-internship-based proposal by the deadlines stipulated in the MSc Project Guidance Document.

As well as the support of their academic supervisor, students on internship are supported by a work-based learning advisor from the Professional Liaison Unit.

- Further details of the Postgraduate Internship Scheme are available from the Professional Liaison Unit - http://www.city.ac.uk/informatics/professional-liaison-unit

WILL I GET ANY PROFESSIONAL RECOGNITION?

Accredited by BCS The Chartered Institute for IT as partially meeting the educational requirement for CITP registration for a period of 5 intakes from the 2011 intake, up to and including the 2015 intake, in the full time and part time modes.

Please contact BCS directly for information about partial accreditation and further details regarding the CITP registration process: http://www.bcs.org.

HOW DO I ENTER THE PROGRAMME?

You can apply online at:
http://www.city.ac.uk/courses/postgraduate/health-informatics-msc

Each application is considered on its merits and is given full consideration by admissions staff.

The usual minimum entrance requirement is a good second class honours degree from

a UK university in a numerate discipline, a recognised equivalent from an accredited overseas institution or an equivalent professional qualification.

Applicants should have basic competence and familiarity with mathematics.

For those students whose first language is not English, one of the following qualifications is also required:

- IELTS: 6.5 (minimum of 6.0 in all four test components)

Please note that TOEFL is not accepted as evidence of English language ability for students that require a Confirmation of Acceptance for Studies.

For the availability of scholarships please enquire at the Programmes Office of the Department of Computer Science.

To ensure that students are properly prepared for study, and to maximise the benefit gained from the course, admissions staff will also take close account of the areas and nature of previous academic and other achievements.

Version: 5.0
Version date: July 2016
For use from: 2016-17