

# UNIVERSITY OF NOTTINGHAM (UNITED KINGDOM)

## ACADEMIC PLAN SPECIFICATION

### ACADEMIC YEAR 2018

#### Section A. Basic Information

<b>1 Title:</b>	Master of Science Human Computer Interaction		
<b>2 Academic Plan Code:</b>	U7PHMNCI	<b>UCAS Code:</b>	G440
<b>3 School(s) Responsible For Management Of The Academic Plan:</b>			
	Computer Science		50%
	Mechanical, Materials & Manufacturing Engineering		50%
<b>4 Type of Academic Plan:</b>	Joint Plan		
<b>5 Mode of delivery:</b>	Full-time In Person		
<b>6 Plan Accreditation:</b>	N/A		
<b>7 Relevant QAA Subject Benchmark(s):</b>	N/A		

#### Section B. General Information

##### Educational Aims:

The aims of the MSc in Human Computer Interaction are to provide students with the opportunity to:

- 16 Develop detailed knowledge of the necessary theory and practice required to design, evaluate and implement interactive computing systems;
- 17 Initiate careers where the requirements of people are central to the design philosophy (e.g. as a usability engineer/manager, user-interface designer, information systems architect);
- 18 Enhance skills and knowledge, as prospective/current software engineers;
- 19 Develop appropriate skills and knowledge as a basis for research work, e.g. as part of a PhD programme;
- 20 Develop critical and analytical skills relevant to the practice of Human Computer Interaction;
- 21 Enhance their ability to communicate effectively orally and in writing, both under pressure and reflectively;
- 22 Enhance their abilities to work both independently and in a team.

##### Outline Description of Plan:

The programme is studied full-time over a one-year period. Each academic year is divided into two semesters. The basic structure of each semester is eleven weeks of teaching followed by a period for revision and examinations. Part of the assessment may also take place during the teaching period in some cases. This structure means that the examinations for the first semester in any year take place in the early part of the Spring term, and the examinations for the second semester are held towards the end of the Summer term. The Christmas and Easter vacations remain as the two main breaks in the academic year. In addition to the taught aspects of the courses, all MSc students must undertake a major dissertation project within a specific topic area. The majority of the work for the dissertation will take place during the summer period.

##### Distinguishing Features:

The MSc is a multi-disciplinary course run jointly by the School of Computer Science and the Department of Mechanical, Materials and Manufacturing Engineering (M3). All students will take a mix of modules from both schools and, as a consequence, are expected to benefit considerably from the differing perspectives and approaches to teaching and learning.

##### Further Information:

#### Section C. Supplementary Regulations

##### 1 Admission Requirements:

**Plan Requirements:** 2:2 (or international equivalent) in a computer science, engineering, natural sciences, social sciences or art and design subject.

##### Including:

Computer Science, Engineering, Natural Sciences, Social Sciences, Art and Design

##### Excluding:

##### Other requirements:

##### IELTS

**Requirements:** 6.5 w/ no less than 6.0 in ea.

##### General

**Information:** UK Graduates

Applicants are normally required to have a minimum of a Second Class, Division I Honours degree in Computer Science, Engineering, Social Science or another relevant discipline. In exceptional cases, relevant work experience will be taken into account.

## International Students

Applications are welcomed from overseas students with equivalent qualifications to those stated above. Candidates for whom English is not their first language should meet the minimum English language requirements stipulated by the University for postgraduate students. Alternatively, students may be required to attend and successfully complete a pre-sessional English language course offered by the University's Centre for English Language Education (CELE).

**2 Plan Structure****U7PHMNCI - PG I****Compulsory - \*\*Students must take all modules in this group. \*\***

Code	Title	Credits	Compensatable	Taught
MANU4009	Studying Human Performance	20.00	Y	Autumn UK
COMP4017	Design Ethnography	20.00	Y	Autumn UK
MANU4003	Human-Computer Systems	10.00	Y	Spring UK
MANU4008	Contemporary Issues in Human Factors and Interactive Systems	10.00	Y	Spring UK
COMP4036	Mixed Reality Technologies	20.00	Y	Spring UK
COMP4031	Individual Project: Human-Computer Interaction	60.00	N	Summer UK

**Credit Total:** 140

**U7PHMNCI - PG I - Restricted - Group I**

For all students.

Students must take a minimum of 20 and a maximum of 30 credits from this group.

**Restricted**

Code	Title	Credits	Compensatable	Taught
MANU4001	Physical Ergonomics	10.00	Y	Autumn UK
MANU4015	Simulation and Digital Human Modelling	10.00	Y	Autumn UK
COMP3010	Collaboration and Communication Technologies	10.00	Y	Autumn UK
COMP3014	Collaboration and Communication Technologies Development Project	10.00	Y	Autumn UK
COMP3009	Machine Learning	20.00	Y	Autumn UK
MANU4017	Systems Engineering and Human Factors	10.00	Y	Autumn UK
COMP3018	Mobile Device Programming	20.00	Y	Autumn UK
COMP4035	Systems and Networks	20.00	Y	Autumn UK
COMP4039	Databases, Interfaces and Software Design Principles	20.00	Y	Autumn UK
MANU4010	Advanced Methods in Human Factors	10.00	Y	Spring UK
COMP4002	Games	20.00	Y	Spring UK
MANU3010	Risk & Safety Science for Engineers	10.00	Y	Spring UK
COMP4024	Software Engineering Management	20.00	Y	Spring UK
COMP4030	Data Modelling and Analysis	20.00	Y	Spring UK
COMP4038	Simulation and Optimisation for Decision Support	20.00	Y	Spring UK
COMP3021	Fundamentals of Information Visualisation	10.00	Y	Spring UK
COMP3022	Information Visualisation Project	10.00	Y	Spring UK

**Credit Total:** 250

**U7PHMNCI - PG I - Alternative - Group I**

Students must take a minimum of 0 and a maximum of 10 credits from this group. Students with a strong programming background need to take this course:

Students must take either all courses in this group. Students must take a minimum of 0 and a maximum of 10 credits from this group.

**Alternative**

Code	Title	Credits	Compensatable	Taught
MANU4002	Cognitive Ergonomics in Design	10.00	Y	Autumn UK

**U7PHMNCI - PG I - Alternative - Group II**

Students must take a minimum of 0 and a maximum of 20 credits from this group. Students without a strong programming background need to take this course:

OR all courses in this group. Students must take a minimum of 0 and a maximum of 20 credits from this group.

**Alternative**

Code	Title	Credits	Compensatable	Taught
COMP4008	Programming	20.00	Y	Autumn UK

**Credit Total:** 20

**Additional Course Choice:**

Additional course choice should be minimum of 0 and a maximum of 0 credits from this group. Students need to take 180 credits with at least 150 credits at level 4.

**3 Assessment**

The plan specification content should be read in the context of the relevant University Study Regulations. Please refer to this information on:

<http://www.nottingham.ac.uk/academicsservices/qualitymanual/assessmentandawards/index-page-pgt-regulations.aspx>

**Assessment Marking Criteria:**

<http://www.nottingham.ac.uk/regulations/>

**Progression Information:**

This programme will comply with the University Postgraduate taught assessment regulations which can be found at <http://www.nottingham.ac.uk/academicsservices/qualitymanual/assessmentandawards/taughtmastersdegreespgdipsandpgcertcourseswef2016.aspx>

**Borderline Criteria:**

**Degree Information:**

The award of credit, completion of a stage, reassessment and award of Masters degree, postgraduate diploma or postgraduate certificate and its classification are set out in the University Postgraduate taught assessment regulations, which can be found at: <http://www.nottingham.ac.uk/academicsservices/qualitymanual/assessmentandawards/taughtmastersdegreespgdipsandpgcertcourseswef2016.aspx>The optional variations from these regulations are as follows:&bull; The dissertation mark may count towards the award of a Postgraduate Diploma.Candidates who fail to achieve the required standard in their Individual project module will be required to resubmit their work in April of the following academic year. Candidates who wish to submit at an earlier opportunity should contact the School for advice. Candidates who cannot or do not wish to resubmit a failed project for reassessment may be awarded a Postgraduate Diploma, provided that they achieve the standards set by the Supplementary Regulations governing Postgraduate Diplomas.Note that for the award of MSc, Postgraduate Diploma and Postgraduate Certificate with Merit or Distinction the overall marks given must be achieved using first-sit marks only, i.e. resit marks are not taken into account.

**Course**

**Weightings %**

PG I	100.00
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**Degree Calculation**

**Model:**

Arithmetic Mean
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**4 Other regulations**

N/A

**Notwithstanding Regulations:**

## Section D. Learning Outcomes

**Overview:**

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:

Assessment is through a combination of unseen written examinations, coursework assignments (including essays, literature reviews, and survey, laboratory and project reports), oral presentations and a project dissertation. The range of assessment methods provides the students with the opportunity to develop and demonstrate transferable skills relevant to a wide range of issues and applications.

**Teaching & Learning:**

N/A

**Knowledge and Understanding**

A graduate should be able to demonstrate knowledge and understanding of:

**Learning Outcomes**

- A1 the need to consider human factors in the design of interactive computing systems;
- A2the practice of programming;
- A3 the strengths and weaknesses of computer tools, applications and other resources with respect to Human Computer Interaction;
- A4 the scientific principles which underpin interactive systems design, including the relevant computing, engineering, psychological and organisational foundations;
- A5 the scientific literature from disciplines relevant to Human Computer Interaction;
- A6techniques of critical analysis, testing and evaluation.

**Teaching and Learning and Assessment:**

Acquisition of A1-6 takes place through a combination of lectures, seminars, example classes, laboratory classes, and group and individual project work. Teaching and learning methods/strategies are matched as appropriate to the material to be delivered. Group-based activities and presentations are an essential feature of the course and, as the student experience increases, project work features strongly with significant industrial or research input.

**Intellectual Skills**

A graduate should be able to:

**Learning Outcomes**

- B1select and apply analytical and statistical methods for evaluating system designs and interventions;
- B2acquire, and analyse systematically and effectively, substantial quantities of information;
- B3understand and logically evaluate requirements and specifications;
- B4think independently while giving due weight to the arguments of others;
- B5understand complex ideas and relate them to specific problems or questions;

B6critically appreciate and synthesise information from a broad range of sources to aid decision making;  
 B7) an investigations both in the field and in laboratory situations.

#### Teaching and Learning and Assessment:

Acquisition of intellectual skills takes place during the teaching and learning programme from a combination of lectures, seminars, example classes, laboratory classes, and group and individual project work.

#### Professional/Practical Skills

A graduate should be able to:

##### Learning Outcomes

C1use a range of analytical, evaluation and statistical methods which underpin interactive systems design  
 C2program and comprehend/apply software engineering methodologies  
 C3design and implement systems taking into account user and task requirements and constraints  
 C4evaluate systems in relation to performance, quality, safety, satisfaction and well-being  
 C5 research and review scientific and industrial literature  
 C6prepare technical reports  
 C7prepare and deliver technical presentations  
 C8recognise professional, ethical and legal issues involved in the exploitation of interactive systems  
 C9plan, schedule, project manage and execute an in-depth investigation both individually and within a team.

#### Teaching and Learning and Assessment:

Acquisition of practical skills is developed throughout the teaching and learning programme. Initial guidance is provided in project planning, methodology, presentations, report writing, design and evaluation practice, and use of appropriate computer based packages. The skills are enhanced during a range of group based and individual assignments and projects.

#### Transferable/Key Skills

A graduate should be able to:

##### Learning Outcomes

D1use a range of data gathering, analytical and statistical methods for solving problems;  
 D2obtain information from scientific and industrial literature and from software systems including the internet;  
 D3critically analyse and synthesise information from scientific, industrial and internet-based literature;  
 D4 organise and manage their own (and others'™ time) including scheduling tasks and meeting deadlines;  
 D5 prepare individual and group written reports and oral presentations;  
 D6work effectively in a collaborative environment;  
 D7undertake self-directed study, including information acquisition and analysis to enable continued learning during a professional career;  
 D8exhibit innovation and creativity in problem solving.

#### Teaching and Learning and Assessment:

Acquisition of transferable skills takes place during the teaching and learning programme from a combination of lectures, seminars, example classes, laboratory classes, and group and individual project work.

Plan Search