| | | |
|---|---|---|
| **PROGRAMME SPECIFICATION** | | Newcastle University |

| 1 | Awarding Institution | Newcastle University |
|---|---|---|
| 2 | Teaching Institution | Newcastle University |
| 3 | Final Award | 5447F MSc Human Computer Interaction |
| 4 | Programme Title | 5447F MSc Human Computer Interaction (HCI) |
| 5 | Programme Code | 5447F |
| 6 | Programme Accreditation | N/A |
| 7 | QAA Subject Benchmark(s) | N/A |
| 8 | FHEQ Level | Level 7 |
| 9 | Last updated | May 2023 |

| **10** | **Programme Aims** |
|---|---|

1. To equip students with the knowledge and skills necessary to undertake doctoral level research in HCIHCI: the application of personal and community-based digital technologies in the support of local communities, local government service provision, and local democracy.
2. To provide students with an understanding of contemporary issues in the technology, theory, policy and practice of HCI.
3. To provide students with an understanding of theory and application of the principal research methods for HCI.
4. To develop skills in the critical assessment of research in HCI.
5. To develop the project planning, team-working and communication skills necessary for the conduct of cross- and multi-disciplinary disciplinary research in HCI.
6. To provide a programme which meets the FHEQ at Masters level.

| **11** | **Learning Outcomes** |
|---|---|

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

<div align="center">

**Knowledge and Understanding**

</div>

On completing the programme students should have:

A1 Knowledge and understanding of contemporary practices and challenges in the use of digital technologies in local government service provision.
A2 Knowledge and understanding of the principal qualitative and quantitative research methods for HCI, including an understanding of their conceptual underpinnings and limitations and experience of their practical application.
A3 Knowledge and understanding of interaction design methods, including their practical application in design-led research.
A4 Knowledge and understanding of the principles of human-computer interaction and their application to challenges of HCI
A5 Knowledge and understanding of social and ubiquitous computing and their application to challenges of HCI.
A6 Specialist knowledge and understanding that underpins one application strand of HCI (i.e. in digital technologies, planning, public health & social care or pedagogy and learning).

**Teaching and Learning Methods**

The primary teaching and learning methods for learning and understanding (A1-A6) are

seminars and practical classes. Students will be required to deepen understanding by independent reading of the relevant literature both in preparation for seminars and subsequently. This is supported through guidance provided as part of students' research methods training, and supplemented by topic-specific guidance during seminars. Group and individual project work will also play and important role, allowing students to strengthen and apply the knowledge and understanding they have gained.

## Assessment Strategy

Assessment of knowledge and understanding (A1-A6) is primarily assessed through coursework, but also through unseen written examinations (for specific technical knowledge), project reports (using a range of formats) and presentations.

## Intellectual Skills

On completing the programme students should be able to:

B1   Critically appraise and summarise both peer reviewed and other literature.
B2   Analyse, evaluate and interpret qualitative and quantitative data.
B3   Be creative and innovative in the application of design methods in problem solving.
B4   Evaluate and use appropriate computer based tools and techniques.
B5   Plan, conduct and report a programme of novel investigative work.
B6   Take account of different disciplinary perspectives on knowledge and methods in planning, designing, conducting and communicating multi- and cross-disciplinary research.

## Teaching and Learning Methods

Intellectual skills (B1-B6) are introduced and practised throughout the taught modules, in particular through the use of appropriate case studies used in seminar and practical classes. Specific research skills are introduced in seminar on research methods (B1, B2, B4), design-led research (B3), and research proposal planning (B5, B6). Both team and individual projects provide important opportunities for students to apply and develop all these skills (B1-6). Small group and one-to-one project supervision is employed in the team and individual project work to ensure students receive appropriate support and have the opportunity for deep engagement in the learning of skills.

## Assessment Strategy

Intellectual skills are assessed through coursework assignments, both practical (artefacts and analysis) and written reports and presentation, and for technical modules through unseen written examinations. Specific skills will be the focus of the assessment of particular modules (B3: Interaction Design Methods for HCI; B4: Technologies for HCI; B2: Research Methods for HCI; B5/B6: HCI Research Project), whereas presentations and final reports for the dissertation module will be assess all these intellectual skills.

## Practical Skills

On completing the programme students should be able to:

C1   Apply advanced practical skills in the specific areas of HCI chosen as part of their study (through the option strands).
C2   Apply design methods in problem solving.
C3   Use the academic and practitioner literature to search for information to address research problems.
C4   Prepare research reports, and deliver research presentations to domain experts.
C5   Design and prepare engaging presentations to non-experts in multiple media formats.
C6   Manage a research project.

## Teaching and Learning Methods

Practical skills (C1-C6) are developed through hands on practical exercises, coursework

assignments and project work. Support for this is provided in the seminars and practical classes of the core modules. The seminar format of the core modules will place a particular emphasis on presentation and literature review skills. The research project will afford the opportunity for one-to-one support for the development of practical skills involving both the supervisory team and relevant post-doctoral and doctoral researchers.

### Assessment Strategy

Practical skills (C1-C6) are assessed though a range of coursework assignments associated with taught modules and through the range of formats of project deliverables (e.g. presentations, demonstrations and dissertation) associated with the team and individual assignments and projects

### Transferable/Key Skills

On completing the programme students should be able to:

D1    Communicate effectively (verbally, in writing, and using digital media).
D2    Work effectively as part of a team.
D3    Develop novel ideas and solutions to problems.
D4    Manage resources, plan organise and prioritise work effectively to meet deadlines.
D5    Learn independently and engage in open-minded critical enquiry.

### Teaching and Learning Methods

Transferable skills (D1-D5) are development through participation in seminars and through coursework and project work. Effective communication (D1) will be developed through participation in seminars and practical classes, and further through feedback on written coursework submission and presentations. Support for this is provided through the core modules in particular, facilitated by the small group character of the seminar format. Team working skills (D2) are developed through various team-based practical exercises and assignments. Deadlines for submission of coursework (formative and summative) will foster time and work management skills (D4). The research project will support the development of all these skills (D1-D5).

### Assessment Strategy

Transferable skills (D1-D5) are assessed throughout the taught modules through coursework (including reports and presentations). Team coursework will directly assess students' ability to work as part of a team (D2). As the dissertation module includes the conduct of a substantial project in a real-world context, including engaging with external stakeholders, service users, etc., it will assess all transferable skills (D1-5).

### 12    Programme Curriculum, Structure and Features
#### Basic structure of the programme

The programme is studied on over one year full-time. There is a single stage to the programme, requiring the study of 180 credits. A 10-credit module consists of 100 hours of study time, made up of seminars, lectures, practical classes, presentations, private study, completion of coursework and revision. Taught modules vary between 10- and 20-credit taught modules and an 80-credit research project module The programme has 150 credits of core modules (taken by all students) and 30 credits of optional modules organised as 30-credit optional strands in one of the 4 HCI specialisms (Technologies, Public Health & Social Care, Local Democracy and Community Learning). Students must select one option strand and take all 30 credits of modules from that strand.

#### Key features of the programme (including what makes the programme distinctive)

A key feature of the program is that it combines training in fundamental knowledge and skills in areas that cut across all areas of HCI and HCI research (human-computer interaction,

interaction design, research methods and ubiquitous and social computing) with the option of deeper specialist training in a specific strand of HCI: either the underlying technologies of HCI (Technology option strand), or discipline specific training relevant to one of three HCI application domains (i.e. the Local Democracy, Public Health & Social Care, or Community Learning option strands). The Research Project in HCI requires students to undertake a significant design-led HCI research project that involves supervisors from at least two different strands, and at least one external organisation who will both provide and advise on the real-world context that the research project is responding to.

Involvement of partner organisations (industry, local government and third sector) where appropriate in:

*   Delivery of case studies for core modules;
*   Seminars and practical classes;
*   Co-supervision of CSC8609 (HCI Research Project);
*   Supporting access to stakeholders and service users (CSC8609)

Fully-costed commitments from external organisations, to facilitate the engagement of their staff in the delivery of the MSc in HCI have been made by:

*   Northumberland County Council, Newcastle City Council, Gateshead Council.
*   BT Research, eBay Research Labs, Microsoft Research (Cambridge), BBC R&D (UK), Orange Labs (France), IBM Research (Smarter Cities Technology Centre, Ireland), Promethean (UK), SMART Technologies (Canada), Line (UK); Philips Research (Eindhoven), and Tunstall Healthcare (UK).
*   AgeUK, Investing in Children, Angelou Centre, Gentoo, Food Nation, Balance North East, Schools North East, Reflective Thinking, Churchill Community College, Newcastle City Learning Centre, Demos, FutureGov, Northern Architecture and The Royal Town Planning Institute.

**Programme regulations (link to on-line version)**

-R5447F.pdf (ncl.ac.uk)

| **13** | **Criteria for admission** |
|---|---|

*Entry qualifications:* a good honours degree (upper second class or equivalent) in any discipline if applicant has additional relevant non-academic experience; or a good honours degree (upper second class or equivalent) in Computer Science, Engineering, Education, Politics, Social Science, Architecture, Planning, Psychology, Health Studies (or related discipline) or Design.

*Admissions policy/selection tools:* shortlisting based on qualifications, previous experience and personal statement regarding interest in HCI; all short-listed candidates to be interviewed; offers made on the basis of qualifications, experience and interview performance.

*Non-standard Entry Requirements:* applicants for fully funded scholarships will be required to submit by a fixed deadline (which will be externally advertised).

*Additional Requirements:* None.

*Level of English Language capability:* IELTS 7.0 (or equivalent)

| **14** | **Support for Student Learning** |
|---|---|

Generic information regarding University provision is available at the following link.
Generic Information

| **15** | **Methods for evaluating and improving the quality and standards of teaching and learning** |
|---|---|

Generic information regarding University provision is available at the following link.
Generic Information

*Mechanisms for gaining student feedback*
Feedback is channelled via the Student-Staff Committee and the Board of Studies.

*Faculty and University Review Mechanisms*
Every six years degree programmes in each subject area undergo periodic review. This involves both the detailed consideration of a range of documentation, and a review visit by a review team (normally one day in duration) which includes an external subject specialist and a student representative. Following the review a report is produced, which forms the basis for a decision by University Learning, Teaching and Student Experience Committee on whether the programmes reviewed should be re-approved for a further six year period.

| **16** | **Regulation of assessment** |
|---|---|

Generic information regarding University provision is available at the following link.

Generic Information

---

In addition, information relating to the programme is provided in:

The University Prospectus:  https://www.ncl.ac.uk/postgraduate/

Degree Programme and University Regulations: http://www.ncl.ac.uk/regulations/docs/

---

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.