The University of Manchester

Health Informatics Education, Training and Development

Kieran O’Malley
Health eResearch Centre

- HeRC is one of four nodes across UK which together make the Farr Institute of Health Informatics
- Focus on methodologies
- Led by University of Manchester
- Academic Partners: Lancaster, Liverpool, Sheffield, Newcastle, York
- Industry Partners: Incl. CISCO, AstraZeneca, GSK, Intel, Siemens
The Aims

- **Advance methodology** to harness linked health data for research and innovation.
- **Drive research** using this methodology to support healthcare, academia, industry and participating citizens.
- **Build capacity** in the health informatics scholarship and professional development
The Community

Researchers

Developers

Patients

Academics

Clinical Specialists

Public

PhD Students
Drivers for Health Data Science

• Current model of healthcare delivery in the UK is subject to unprecedented challenge.

• To do this we need to make best use of the health data we collect

• This requires individuals who understand the healthcare sector, medicine and biology; how data is collected and analysed, and how this can be communicated.

• Devo-Manc and HealthNorth - > University and regional partners to change policy
Education, Training and Development

The Health eResearch Centre will train a new generation of health informaticians and related methodologists, providing the academic and professional underpinning of world-leading e-Health innovation from the UK.
Short courses and workshops in
- Analysis of Linked Health Data
- Fundamental Statistics for Health Data Science

Masters accredited programmes in
- PGCert/PgDip/MSc Health Data Science
- Informatics for Healthcare Systems (30 credits)
- Modernising Scientific Careers (Health Informatics pathway)

Doctoral Training Programmes including industrial/NHS placements
Training environment

- Flexible exit awards
- Embedded in cutting edge research
- Co-learn
- Blended-learning: flip teaching
- Access to world class facilities at Manchester
MSc Health Data Science

• The Health Data Science programme at Manchester offers a number of different pathways and diverse range of optional units

• reflect the needs of practitioners and employers and have been mapped against UK and international health data competency frameworks.

• Studying at Manchester

The University of Manchester

38th In the world
7th In Europe
• 5th In UK
• Students from 154 Countries.
MSc Health Data Science

- Introduction to Software Development in Java
- Introduction to Health Informatics
- Principles in Digital Biology
- Fundamentals of Epidemiology
- Health Information Systems and Technologies

- Fundamental Mathematics and Statistics for Health Data
- Tutorials in Health Data Science
- Understanding Data and Decision Making
- Biomedical Modelling for Health Data Science
- Research Project
# MSc Health Data Science

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<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<td>1</td>
<td>2</td>
<td>Up to 1 year</td>
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<tr>
<td><strong>Introduction to Software Development in Java (15 credits)</strong> OR <strong>Principles in Digital Biology (15 credits)</strong></td>
<td><strong>Fundamentals in Epidemiology (15 credits)</strong></td>
<td><strong>Understanding Data and Decision-Making (15 credits)</strong></td>
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<tr>
<td><strong>Health Information Systems and Technologies (15 credits)</strong></td>
<td><strong>Introduction to Health Informatics (15 credits)</strong></td>
<td><strong>Biomedical Modelling for Health Data (15 credits)</strong></td>
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<td><strong>Tutorials in HDS (15 credits)</strong></td>
<td><strong>Fundamental Mathematics and Statistics for Health Data (15 credits)</strong></td>
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<td><strong>Research project (60 credits)</strong></td>
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<th>PG Cert</th>
<th>PG Dip</th>
<th>Full MSc</th>
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## MSc Health Data Science

<table>
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<tr>
<th>Years 1/2</th>
<th>Years 3/4</th>
<th>Year 5</th>
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Programme Funding

• Up to 50% MSc fees for home/UK students
• MRC funded

• **3 Years** - Year 1 £3,111; Year 2 £3,111; Year 3 £778
• **5 Years** - Year 1 £1,555; Year 2 £1,555; Year 3 £1,555, Year 4 £1,555 Year 5; £778
Masters level short course


• This bespoke programme meets the needs of the health informatics community, and facilitates professionalism

• The programme is based on experiential learning

• The 30 credits can be used for further postgraduate study MSc Health Data Science
Short unaccredited skills workshops

• Often addressing on demand skills that feed other accredited courses
• Introductory level courses
• Data dives

In the future there will a broader portfolio of courses based on local requirements
Case Studies

- Attract individuals from diverse backgrounds: IT; business intelligence; info management
- 40 Students have now gone through the Masters Level Short Course – all can use the 30 credits gained form this towards full MSc in Health Data Science.
- Rebecca Moden and Peter Dobson at Bolton NHS FT – both transferred from the short course onto the full Masters.
- Over 90 Students have gone through our short 2 day skills workshops.
Contact Details

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Programme Director
Dr Georgina Moulton