



The
University
Of
Sheffield.

Programme Specification

A statement of the knowledge, understanding and skills that underpin a taught programme of study awarded by The University of Sheffield

1	Programme Title	International Health Technology Assessment and Reimbursement
2	Programme Code	HART66, HART108
3	JACS Code	B900
4	Level of Study	Postgraduate
5a	Final Qualification	MSc
5b	QAA FHEQ Level	7
6a	Intermediate Qualification(s)	PGDip, PGCert
6b	QAA FHEQ Level	7
7	Teaching Institution (if not Sheffield)	Not applicable
8	Faculty	Health
9	Department	School of Medicine and Population Health (Population Health)
10	Other Departments involved in teaching the programme	None
11	Mode(s) of Attendance	Distance Learning
12	Duration of the Programme	Part time route (2-5 years) or part time route (2 years)
13	Accrediting Professional or Statutory Body	Not applicable
14	Date of production/revision	December 2010 / February 2015 / March 2018 / May 2019 / November 2019 / February 2024

15. Background to the programme and subject area

The development and application of new health technologies (pharmaceutical and non-pharmaceutical products and devices used to diagnose, monitor or treat diseases or enhance health and well-being) is crucial to the future prosperity of both developed and developing nations. Health technology assessment (HTA), and the associated strategies for obtaining reimbursement from purchasers, is a relatively new area of expertise. This has developed to enable the evaluation of new health technologies in terms of effectiveness, cost-effectiveness, and relationship to markets. From an industry perspective, the effective assessment and reimbursement techniques for health technologies are critical to bringing a technology to market and thus to corporate success. From the perspective of those charged with governing health technologies and reimbursing providers, evaluation is critical to equity and good governance of public monies.

The skills to undertake effective evaluation are disparate and cannot currently be gained from a single educational outlet. This Masters' degree fills this gap in provision, and its distance learning, part-time mode of delivery has been developed in response to a clear demand from the health technology industries including pharmaceuticals, medical devices and diagnostic technologies. It is the only graduate programme offering the entire range of knowledge and skills needed by those developing health technologies for market, or health technology assessors involved in commissioning or evaluation. The programme provides knowledge and skills in economic evaluation, modelling and appraisal of research evidence, along with understanding of reimbursement strategies for the development of value propositions in multiple jurisdictions.

POPULATION HEALTH is a world leader in HTA, with expertise in health economic modelling, research methods and critical appraisal of health technologies. The Schools' reputation is reflected in its large on-going contract to provide assessment of technologies for the UK HTA body, the National Institute for Health and Care Excellence (NICE).

16. Programme aims

1. To provide participants from health technology providers and assessors with a critical understanding of the entire process of health technology assessment and reimbursement.
2. To provide knowledge and skills in the principles, techniques and real world application of health technology assessment, i.e. developing value propositions, study design and analysis, systematic review and synthesis of evidence, economic evaluation including patient reported outcomes, and cost-effectiveness modelling.
3. To equip graduates with professional-level competency in the design, commissioning, and review of health technology assessments in multiple jurisdictions, and enable them to contribute a health technology assessment perspective in multi-disciplinary contexts such as product development planning, prioritisation of research, and government or international health policy planning.

17. Programme learning outcomes

Knowledge and understanding. Having successfully completed the MSc in International Health Technology Assessment and Reimbursement, students will possess knowledge and understanding of:

K1	The processes, evidence requirements and analytical techniques which are required to successfully bring a product to market, including: product development; identification of appropriate disease management pathways; preparation of value propositions; and implementing pricing strategies for new products in different jurisdictions.
K2	Variations in evidence and analytical requirements between jurisdictions in which reimbursement is sought.
K3	The principles and techniques of economic evaluation in HTA, with the aim of selecting and applying the appropriate techniques to match the evaluative question being addressed and the jurisdiction within which the evaluation is conducted.
K4	The different methods available to elicit data on health outcomes and patient quality of life, and how these data can be incorporated into cost-effectiveness models.
K5	Interpretation and design of clinical trials to gather high quality data on the clinical effectiveness of technologies, and how to analyse data from these trials.
K6	The principles and application of systematic reviewing in HTA; how to assess the quality of an evidence-synthesis and gauge the level of bias or uncertainty; and how to synthesise evidence for incorporation into cost-effectiveness models.
K7	The commonly-used modelling methods; the uses of modelling in international HTA; the processes and data requirements involved in building models; and the international guidance on developing and critically appraising models.

Students achieving the award of a **Postgraduate Certificate** or **Postgraduate Diploma** will have developed knowledge and understanding defined by those K1 - K7 outcomes commensurate with the successful completion of combinations of units set out in the Programme Regulations.

Skills and other attributes. Having successfully completed the MSc in International Health Technology Assessment and Reimbursement, students will be able to:

S1	Apply appropriate postgraduate level study skills during the programme and in subsequent employment or study, including communication, information literacy, self-direction and originality in tackling problems.
S2	Prepare a value proposition for a new product.
S3	Evaluate problems from an economic perspective, and select and apply appropriate techniques of economic evaluation to different contexts and jurisdictions.
S4	Select and apply appropriate techniques for collecting data on patients' health-related quality of life.
S5	Design clinical trials to gather evidence on the effectiveness of new health technologies, and apply appropriate frameworks to analyse the data from such studies.
S6	Identify the evidence requirements for a cost-effectiveness model; undertake robust evidence synthesis for incorporation into a model, and evaluate the level of uncertainty or bias within an evidence synthesis.

S7	Develop a specification for commissioning a piece of modelling work to inform an HTA in the context of the evidence available and the jurisdiction concerned; interpret model results and critically appraise models used in international HTA.
S8	Undertake a piece of original project work relevant to health technology assessment and reimbursement.
S9	Apply knowledge and skills gained during the programme to real-life problems encountered in the student's current or subsequent professional life.

Students achieving the award of a Postgraduate Certificate or Postgraduate Diploma will have developed skills defined by those S1 – S9 outcomes commensurate with the successful completion of combinations of units set out in the Programme Regulations.

18. Teaching, learning and assessment

Development of the learning outcomes is promoted through the following teaching and learning methods:

1. Distance learning materials

All units are based around DL materials written specifically to address the learning objectives. These comprise textual materials and online resources such as web-lectures, webinars and streamed video. These address the main knowledge outcomes K1-7 and S1.

2. Problem-based activities

Incorporated into the structure of the units are a series of reflective exercises and other formative activities that enable students to apply the knowledge in the DL materials, usually in relation to case studies or further reading. Online forums are available for collaborative work and feedback for each unit, and there will be regular online tutor support during study units. These variously address K1-K7 and also enable students to develop skills S1-7, 9.

3. Independent guided study

At postgraduate level, this is an important component of almost all units, and serves to enable students to relate unit content to their own needs, evaluate and appraise the content, apply content to their own professional situation, and generate research ideas. Addresses learning outcomes K1-7; S1-9.

4. Project (MSc only)

The project is an extended, supervised piece of work that allows students to integrate their learning and apply it to a practical topic of relevance to their current or future employment in health technology assessment. Students undertake a long project (60 credits) that addresses K1-7 and S1-8.

Opportunities to demonstrate achievement of the learning outcomes are provided through the following assessment methods:

1. Formative assessments

These are used on all units to help students to appraise their own progress and to identify any needs for remedial work in terms of knowledge and transferable personal skills. Formats include written work, self-assessment exercises, tests of knowledge and collaborative tasks. The assessments often provide a review mid-way through a unit to act as a focus for student activity and to give feedback, but on occasions also help students to start thinking about summative assessment. Formative assignments also address developing personal skills including IT and communication. Address learning outcomes: K1-7, S1-7.

2. Summative assessments

These are designed to address the knowledge needs of students and often seek to relate knowledge to students' own professional situations. Assessment methods include essays, exercises and other tests of knowledge. Address learning outcomes K1-7, S1-7, 9.

3. Project (MSc only)

The project assesses application of knowledge to a practical problem in health technology assessment. The long project (60 credits) assesses K1-7 and S1-8.

19. Reference points

The learning outcomes have been developed to reflect the following points of reference:

The research informed orientation of the University of Sheffield and the School, and the School's priority to recruit high quality students.

The attributes of the Sheffield Graduate, as presented at <http://www.shef.ac.uk/sheffieldgraduate/>

Framework for Higher Education Qualifications (2024)

https://www.qaa.ac.uk/docs/qaa/quality-code/the-frameworks-for-higher-education-qualifications-of-uk-degree-awarding-bodies-2024.pdf?sfvrsn=3562b281_11

20. Programme structure and regulations

The MSc programme comprises six compulsory core units and a further choice from four optional units, all of which are delivered by distance learning, plus a project. All taught units are 15 credits.

The course structure comprises 120 credits of taught units (6 core and 2 options) plus a 60-credit project.

Students taking a postgraduate certificate (60 credits) or diploma (120 credits) take combinations of units set out in the Programme Regulations.

To provide additional flexibility for those accessing the course alongside employment commitments, students may take up to five years to complete the MSc.

Detailed information about the structure of programmes, regulations concerning assessment and progression and descriptions of individual modules are published in the University Calendar available on-line at <http://www.sheffield.ac.uk/calendar/regs>.

21. Student development over the course of study

The programme has been designed to enable developmental understanding of health technology assessment, and reimbursement. The core units supply the fundamentals, while students may then choose options that complement their existing skills, or enable them to specialise in a particular aspect of HTA. The long project allows students to focus on an in-depth piece of work that may be directly related to their current employment. A range of personal and generic skills are developed progressively alongside the development of knowledge and skills, through structured learning, formative and summative assessments and online collaborative activities.

Introductory unit

The first core unit to be studied *Methods and Processes in International HTA* has been designed not only as an introduction to the entire programme but also as a means to diagnose the specific areas of need of each individual student. Using an interactive, problem-based approach, the unit will allow the tutor to identify strengths and weaknesses. In discussion this will enable students to tailor their options taken in year 2 to address their training needs.

Core Units

The other five core units provide grounding in the foundational elements of HTA: international healthcare and reimbursement systems, principles of modelling, reimbursement submissions, economic evaluation and systematic reviewing techniques. Four are studied in year one, with two more in year two.

Optional Units

In the second year, students may choose from a range of options that build directly upon the core units. Thus for example, a model building unit builds on the groundwork covered in the earlier principles of modelling unit.

The Project

The project may be started in the second year or undertaken once all units have been completed in a subsequent study year, and is intended both to integrate learning from the taught units and to enable participants to synthesise their knowledge around a case study related to real-life issues in HTA and reimbursement. The long project develops a value case for a product, to a standard suitable to be presented to reimbursement authorities in multiple jurisdictions. Students undertaking the Certificate and Diploma will be advised by course tutors on combinations of units, based on previous educational and work experience and individual training needs, to ensure appropriate development throughout the programme.

22. Criteria for admission to the programme

Detailed information regarding admission to programmes is available from the University's On-Line Prospectus at <http://www.shef.ac.uk/courses/>.

The normal entry requirement is at least an Upper 2nd class honours degree awarded by a recognised institution in the UK or abroad. Successful applicants will either be already working or intending to work in a health technology industry or for an HTA agency or similar regulatory organisation. On occasions, and subject to Faculty approval, applicants with other qualifications will be considered for admission, although they may be required to register for the postgraduate certificate or diploma in the first instance.

Students must have adequate access to the Internet and e-mail, and to Windows and Microsoft Office or fully compatible software.

23. Additional information

The School of Medicine and Population Health (SMPH) is a large, multidisciplinary School within the Faculty of Health, specialising in health services, health economics and public health research, and the application of health economics and decision science to health services and public health. The School enjoys an outstanding reputation for research and teaching of international quality.

The Health Economics and Decision Science (HEDS) section (which is responsible for this MSc) is a leading research and consultancy centre, with over 40 core staff specialising in methodological and applied research in the area of health economics and decision modelling (<http://www.shef.ac.uk/scharr/sections/heds>). This MSc programme builds on the research foundation of HEDS to provide leading-edge specialist training for students across the world.

This specification represents a concise statement about the main features of the programme and should be considered alongside other sources of information provided by the teaching department(s) and the University. In addition to programme specific information, further information about studying at The University of Sheffield can be accessed via our Student Services web site at <http://www.shef.ac.uk/ssid>.