This document applies to students who commence the programme(s) in:

<table>
<thead>
<tr>
<th>Awarding institution</th>
<th>Teaching institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of York</td>
<td>University of York</td>
</tr>
</tbody>
</table>

**Department(s)**

<table>
<thead>
<tr>
<th>Award(s) and programme title(s)</th>
<th>Level of qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGCert and PGDip in Health Economics for Health Care Professionals</td>
<td>Level 7 (PGCert, PGDip)</td>
</tr>
</tbody>
</table>

**Award(s) available only as interim awards**

Awards are PGCert and PGDip

**Admissions criteria**

Minimum entry criterion is the equivalent of a UK honours degree at 2:1 or higher, or qualifications and/or experience deemed by the University to be of an equivalent standard.

**Length and status of the programme(s) and mode(s) of study**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Length (years) and status (full-time/part-time)</th>
<th>Start dates/months (if applicable – for programmes that have multiple intakes or start dates that differ from the usual academic year)</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGCert, followed by PGDip, followed by MSc</td>
<td>Up to 6 years part time</td>
<td>Mid-September each year</td>
<td>Face-to-face, campus-based</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes. There is a compulsory two day campus-based workshop for the PGCert programme (at the start of Module 1). Each module thereafter includes an optional two day workshop.</td>
<td>Yes.</td>
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</tbody>
</table>


<table>
<thead>
<tr>
<th>Language of study</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Programme accreditation by Professional, Statutory or Regulatory Bodies</strong> (if applicable)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Educational aims of the programme(s)</strong></td>
<td>“The Postgraduate Certificate in Health Economics for Health Care Professionals aims to provide you with the basic principles and tools of health economics so that you can understand the work place situations you encounter from an economic perspective and apply basic economic concepts in your work.”</td>
</tr>
</tbody>
</table>

"The Postgraduate Diploma in Health Economics for Health Care Professionals aims to provide you with the same basic tools as the Postgraduate Certificate but then deepens your knowledge in the areas of economic evaluation and the economics of health care systems.”

<table>
<thead>
<tr>
<th>Intended learning outcomes for the programme – and how the programme enables students to achieve and demonstrate the intended learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This programme provides opportunities for students to develop and demonstrate knowledge and understanding qualities, skills and other attributes in the following areas:</strong></td>
</tr>
<tr>
<td><strong>A: Knowledge and understanding</strong></td>
</tr>
</tbody>
</table>
| **For the PGCert and PGDip** To provide students with the basic principles and tools of health economics so that they can understand the workplace situations they encounter from an economic perspective and apply the basic economic concepts in their work. Additionally for the diploma: To deepen students’ knowledge in specialist areas | Learning/teaching methods and strategies (relating to numbered outcomes):  
  - workbook supplemented by textbook (all modules).  
  - Yorkshire-based online seminars and tutor support (all modules)  
  - Two day workshops, one per module (all modules)  
  |
| **Types/methods of assessment (relating to numbered outcomes)** |  |
|  - closed (modules 1, 2, 3 and 4) and open paper examinations (modules 5 and 6). Modules 3 and 4 involve self-study on a topic prior to the examination.  
  - formative work: two pieces per module (three pieces for Module 1) |  |

**B: (i) Skills – discipline related**
PGCERT

Module 1. Define and illustrate, using diagrams and examples, the fundamental concepts of economics including scarcity, opportunity cost, choice, the production possibilities frontier, production functions, average and marginal costs, demand and supply, willingness to pay, welfare, consumer and producer surplus, and different types of market. Explain, using examples, why each of these concepts is important when applied to the study of health. Explain why decision making under uncertainty is important in explaining the existence of markets for health insurance. Outline the main subject areas of health economics to a non-economist.

Module 2. Explain, from an economic perspective, what is special about health care. Explain, and be able to give examples of, the factors that influence the demand for health care and how those demanding health care respond to incentives in different types of health care system. Explain, and be able to give examples of, the interactions between supply and demand in different health care systems and the implications for efficiency and for equity. Critically appraise case studies that illustrate the concepts that are covered in the module. Explain the policy relevance of these applications.

Module 3. Explain the basic concept of what economic evaluation is and why it is necessary. Describe the different normative perspectives used in economic evaluation in health care. Set up a decision problem for an economic evaluation in health care. Consider the opportunity costs of different decisions. Discuss the advantages and disadvantages of different ways of expressing the measures of the effect of an intervention (relative risk, odds ratio, risk ratio, the number needed to treat and differences in mean). Explain what is meant by sampling error and the reasons we derive confidence intervals of estimates of effect. Explain what is meant by a meta-analysis and its use in summarising the results of studies of similar interventions. Describe different types of study design and their strengths and weaknesses. Explain the differences between the various forms of economic evaluation. Consider the different outcomes used for different forms of economic evaluation. Calculate the quality-adjusted life years gained from a health care intervention. Explain the various methods for valuing health states. Explain the various methods for calculating willingness to pay. Identify which costs are relevant to a given economic evaluation. Explain how costs can be measured. Understand how to measure and value cost. Calculate appropriate ICERs from a set of mutually exclusive treatment options. Demonstrate understanding of other decision rules. Discuss the logic for discounting costs and consequences and perform a discounting calculation. Discuss the need for modelling. Undertake sensitivity analyses. Undertake a critical appraisal.

PGDIP

Module 4. Define and describe the key components of different types of health care system according to how funds are raised and distributed, and how services are purchased and provided. Analyse how equity, efficiency and economic incentives are influenced within any given country’s health care system according to its classification. Explain how stakeholders such as governments, employers and patients can affect the way in which health care systems are organised and how

Learning/teaching methods and strategies (relating to numbered outcomes):
- workbook supplemented by textbook where relevant (all modules)
- Yorkshare-led online seminars and tutor support (all modules)
- Two day workshops, one per module (all modules)
health policy may be influenced by them. Draw and describe four generic diagrams of health care systems according to their classification (tax-based national health services, social insurance, national insurance, mixed private insurance and public health services) using the World Health Organization's methods. Explain the limitations of attributing macro-level health outcomes (such as life expectancy) to a health care system. Identify and describe the principal challenges faced by the health care systems of developing countries in comparison with developed countries. Summarise and critically appraise the methods and results of published single-country analyses and international comparisons of the performance of health care systems. Use a variety of reliable information resources and the techniques learned on this and relevant modules covered to date to analyse the potential consequences of a policy change in a given health care system.

Module 5. Explain the basic ideas underlying the theory of probability and classical statistical analysis, including random variables and their probability distributions, descriptive statistics, sampling and sampling error. Explain the difference between association and causation and the role played by randomisation in identifying causal effects. Take a practical problem and a sample of data, define the problem in a way that is amenable to statistical analysis and explain why the approach adopted is reasonable. Perform the relevant computations for the statistical methods covered and be able to provide intuitive explanations of the methods and results, showing how the results are derived. Use a software package such as Excel to carry out data management, descriptive statistics and inferential statistics through to, and including, multiple regression.

Module 6. Explain how the economic concepts of efficiency provide the foundations for the economic evaluation of health care technologies. Understand what the cost-effectiveness threshold represents and know how it might be estimated. Use appropriate decision rules in cost benefit and cost-effectiveness analysis, including an understanding of the importance of incremental ratios, extended dominance, net health benefits. Explain and discuss the rationale for discounting health benefits and costs in economic evaluation. Explain and discuss the methods problems associated with economic evaluation alongside randomised controlled trials (RCTs). Explain the alternative approaches that have been proposed to handle and to describe the various forms of uncertainty when using individual patient level data from RCTs. Explain the rationale for decision analytic modelling for economic evaluation and describe its terminology. Structure and analyse decision problems using a decision tree and Markov model. Explain the difference between deterministic and probabilistic analysis in decision models. Explain the concept of heterogeneity in the context of economic evaluation of health care technologies. Identify the different sources of heterogeneity in economic evaluations. Explain the factors in an economic evaluation which may limit generalisability of the evidence, and to consider how these may impact on the results of the analysis and methods for addressing this. Explain the use, impact and challenges of using economic evaluation methods.

Types/methods of assessment (relating to numbered outcomes)
- closed (modules 1, 2, 3 and 4) and open paper examinations (modules 5 and 6). Modules 3 and 4 involve self-study on a topic relating to an exam question carrying 50% of the marks in the two weeks leading up to the examination.
- formative work two pieces per module (three pieces for Module 1)
to support funding decisions for health care technologies and how this varies between jurisdictions.
### B: (ii) Skills - transferable

**Able to:**

*For the Masters, Diploma and Certificate:*

**NOTE Students tend to be mature with at least a first degree minimum (many have Masters and PhDs).** Hence these skills relate specifically to their abilities in the subject of Economics, and to a lesser extent, Statistics (Module 5)

1. self-confidence in presenting and defending ideas and views before critical audiences
2. general analytical skills - spotting key objectives, identifying assumptions, avoiding logical inconsistencies, marshalling relevant evidence
3. being able to listen and read the arguments of others in such a fashion as to understand the important points being made, taking good notes, spotting weaknesses in others’ arguments
4. good time management - planning a sequence of tasks so that each gets its adequate due, ability to prioritise

**Learning/teaching methods and strategies (relating to numbered outcomes):**

- Yorkshare-led online seminars and tutor support (all)
- Two day workshops, one per module (all)

**Types/methods of assessment (relating to numbered outcomes):**

- exams (1, 2, 4)
- formative assessed essays and workshops (all)

### C: Experience and other attributes

**Able to:**

*For the Masters, Diploma and Certificate:*

1. read, write clearly using a pen in under exam conditions, use

**Learning/teaching methods and strategies (relating to numbered outcomes):**

- See above points
an on-line learning environment, use a Word processor, listen, take notes, summarise and evaluate in lectures; make oral presentation of arguments (limited), debate in workshops; manage time in working to deadlines; problem solve through exercises; use statistical software (e.g. MS Excel)

Types/methods of assessment (relating to numbered outcomes)
- See above points

Relevant Quality Assurance Agency benchmark statement(s) and other relevant external reference points (e.g. National Occupational Standards, or the requirements of Professional, Statutory or Regulatory Bodies)

University award regulations

To be eligible for an award of the University of York a student must undertake an approved programme of study, obtain a specified number of credits (at a specified level(s)), and meet any other requirements of the award as specified in the award requirements and programme regulations, and other University regulations (e.g. payment of fees). Credit will be awarded upon passing a module’s assessment(s) but some credit may be awarded where failure has been compensated by achievement in other modules. The University’s award and assessment regulations specify the University’s marking scheme, and rules governing progression (including rules for compensation), reassessment and award requirements. The award and assessment regulations apply to all programmes: any exceptions that relate to this programme are approved by University Teaching Committee and are recorded at the end of this document.

Departmental policies on assessment and feedback

Detailed information on assessment (including grade descriptors, marking procedures, word counts etc.) is available in our programme handbook (please contact Programme Administrator on healthcon@york.ac.uk if you require a copy)

Information on formative and summative feedback to students is available in our programme handbook (please contact Programme Administrator on healthcon@york.ac.uk if you require a copy)

Diagrammatic representation of the programme structure, showing the distribution and
### Credit Value of Core and Option Modules

#### PGCERT and PGDIP

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer term</th>
<th>Summer vacation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PGCERT:</strong> Module 1</td>
<td>Module 2</td>
<td>Module 3</td>
<td></td>
</tr>
<tr>
<td><strong>PGDIP:</strong> Module 4</td>
<td>Module 5</td>
<td>Module 6</td>
<td></td>
</tr>
</tbody>
</table>

#### Diagrammatic Representation of the Timing of Module Assessments and Reassessments, and the Timing of Departmental Examination/Progression Boards

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer term</th>
<th>Summer vacation</th>
<th>Date of final award board</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Economics of Health Care Systems</td>
<td>Statistics for Health Economics</td>
<td>Advanced Topics in Economic Evaluation</td>
<td>Reassessment</td>
<td>Exam Board Sept/Oct</td>
</tr>
</tbody>
</table>
### Overview of modules

#### Core module table

<table>
<thead>
<tr>
<th>Module title</th>
<th>Module code</th>
<th>Credit level</th>
<th>Credit value</th>
<th>Prerequisites</th>
<th>Assessment rules</th>
<th>Timing (term and week) and format of main assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Economic Concepts</td>
<td>2080901</td>
<td>6</td>
<td>20</td>
<td>none</td>
<td>none</td>
<td>December, closed exam</td>
</tr>
<tr>
<td>Health Economics: Concepts and Analysis</td>
<td>2080902</td>
<td>7</td>
<td>20</td>
<td>2080901</td>
<td>none</td>
<td>March, closed exam</td>
</tr>
<tr>
<td>Introduction to Health Care Evaluation</td>
<td>2080903</td>
<td>7</td>
<td>20</td>
<td>2080901,2080902</td>
<td>none</td>
<td>June, closed exam</td>
</tr>
<tr>
<td>The Economics of Health Care Systems</td>
<td>2080904</td>
<td>7</td>
<td>20</td>
<td>2080901,2080902,2080903</td>
<td>none</td>
<td>December, closed exam</td>
</tr>
<tr>
<td>Statistics for Health Economics</td>
<td>2080905</td>
<td>7</td>
<td>20</td>
<td>2080901,2080902,2080903</td>
<td>none</td>
<td>March, open exam</td>
</tr>
<tr>
<td>Advanced Topics in Economic Evaluation</td>
<td>2080906</td>
<td>7</td>
<td>20</td>
<td>2080901,2080902,2080903,2080905</td>
<td>none</td>
<td>June, open exam</td>
</tr>
</tbody>
</table>

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1. The **credit level** is an indication of the module’s relative intellectual demand, complexity and depth of learning and of learner autonomy. Most modules in postgraduate programmes will be at Level 7/Masters. Some modules are permitted to be at Level 6/Honours but must be marked on a pass/fail basis. See University Teaching Committee guidance for the limits on Level 6/Honours credit.

2. The **credit value** gives the notional workload for the module, where 1 credit corresponds to a notional workload of 10 hours (including contact hours, private study and assessment).

3. **Special assessment rules** (requiring University Teaching Committee approval)
   - P/F – the module is marked on a pass/fail basis (NB pass/fail modules cannot be compensated)
   - NC – the module cannot be compensated
   - NR – there is no reassessment opportunity for this module. It must be passed at the first attempt

4. **Autumn Term**, **SpT** – **Spring Term**, **SuT** – **Summer Term**, **SuVac** – **Summer vacation**

5. **Independent Study Modules** (ISMs) are assessed by a dissertation or substantial project report. They cannot be compensated (NC) and are subject to reassessment rules which differ from ‘taught modules’. Masters programmes should include an ISM(s) of between 60 and 100 credits. This is usually one module but may be more.
## Transfers out of or into the programme

<table>
<thead>
<tr>
<th>Exception</th>
<th>Date approved</th>
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</thead>
</table>
| Quality and Standards
The University has a framework in place to ensure that the standards of its programmes are maintained, and the quality of the learning experience is enhanced.

Quality assurance and enhancement processes include:

- The academic oversight of programmes within departments by a Board of Studies, which includes student representation
- The oversight of programmes by external examiners, who ensure that standards at the University of York are comparable with those elsewhere in the sector
- Annual monitoring and periodic review of programmes
- The acquisition of feedback from students by departments.

More information can be obtained from the Academic Support Office:
http://www.york.ac.uk/admin/aso/

Departmental Statements on Audit and Review Procedures are available at:
http://www.york.ac.uk/admin/aso/teach/deptstatements/index.htm

### Date on which this programme information was updated:
22 December 2016

### Departmental web page:
http://www.york.ac.uk/disthealthecon

### Please note
The information above provides a concise summary of the main features of the programme and learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided.

Detailed information on learning outcomes, content, delivery and assessment of modules can be found in module descriptions.

The University reserves the right to modify this overview in unforeseen circumstances, or where processes of academic development, based on feedback from staff, students, external examiners or professional bodies, requires a change to be made. Students will be notified of any substantive changes at the first available opportunity.